

**Grades 2-5**  
**Digital “Tech-Knowledge” Curriculum Maps**

[Unit of Study: Keyboarding Techniques](#)

[Unit of Study: Digital Citizenship](#)

[Unit of Study: Programming](#)

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<b>Grade: 2-5</b> <b>Subject: Digital</b> <b>“Tech-Knowledgey”</b>	<b>Unit of Study: Keyboarding Techniques</b>
<b>Big Idea/Rationale</b>	Students will use the touch method of keyboarding to prevent injuries and promote accuracy and speed.
<b>Enduring Understanding (Mastery Objective)</b>	<ul style="list-style-type: none"> <li>• Students will identify and demonstrate the ten skills that make up ergonomic techniques and demonstrate proper techniques of alpha-numeric keyboard to promote a healthy lifestyle while using the computer</li> <li>• A tool is only as good as the person using it</li> <li>• Technology is constantly changing and requires continuous learning of new skills</li> <li>• Accurate documents reflect one's image and the image of one's company</li> </ul>
<b>Essential Questions (Instructional Objective)</b>	<ol style="list-style-type: none"> <li>1. How does good posture help to promote good health?</li> <li>2. How does an accurate document promote a positive image?</li> <li>3. How does speed influence one's image?</li> <li>4. How can you use technology to advance your learning in middle school and beyond?</li> </ol>
<b>Content (Subject Matter)</b>	<ul style="list-style-type: none"> <li>• Demonstrate proper keyboarding techniques of alpha-numeric keyboard</li> <li>• Proper ergonomic posture, proper seating and hand and feet placement</li> <li>• Familiarization of mouse and touch-pad</li> </ul>
<b>Skills/ Benchmarks (CCSS Standards)</b>	<p><b>CCSS.ELA-LITERACY.W.5.6</b> With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.</p> <p><b>CCSS.ELA-LITERACY.W.4.6</b> With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.</p> <p><b>CCSS.ELA-LITERACY.W.3.6</b> With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.</p> <p><b>CCSS.ELA-LITERACY.W.2.6</b> With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.</p> <p><b>NJ TECHNOLOGY 8.1.2.A.1</b> Identify the basic features of a digital device and explain its purpose.</p>
<b>Materials and Resources</b>	Chromebook or other digital device, Internet, online typing program
<b>Notes</b>	

<b>Grade: 2-5</b> <b>Subject: Digital</b> <b>“Tech-Knowledgey”</b>	<b>Unit of Study: Digital Citizenship</b>
<b>Big Idea/Rationale</b>	<p>Students use digital media to explore, connect, create, and learn in ways never before imagined. With this power, young people have extraordinary opportunities yet face potential pitfalls. Schools are dealing with the associated ramifications — like cyberbullying, digital cheating, and safety and security concerns. These issues underscore the need for students to learn — and for teachers to teach — digital literacy and citizenship skills.</p>
<b>Enduring Understanding (Mastery Objective)</b>	<ul style="list-style-type: none"> <li>• <b>Privacy and Security</b> - Students learn strategies for managing their online information and keeping it secure from online risks such as identity thieves and phishing. They learn how to create strong passwords, avoid scams and schemes, and analyze privacy policies.</li> <li>• <b>Digital Footprint and Reputation</b> - Students learn to protect their own privacy and respect others’ privacy. Our digital world is permanent, and with each post, students are building a digital footprint. By encouraging students to self-reflect before they self-reveal, they will consider how what they share online can impact themselves and others.</li> <li>• <b>Self-Image and Identity</b> - Students explore their own digital lives, focusing on their online versus their offline identity. Students learn the benefits and risks of presenting themselves through different personas and the effects on their sense of self, their reputation, and their relationships.</li> <li>• <b>Creative Credit and Copyright</b> - Living in a “copy/paste” culture, students need to reflect on their responsibilities and rights as creators in the online spaces where they consume, create, and share information. From addressing plagiarism to piracy, students learn about copyright and fair use. (Will be covered in more detail in the Unit on Research)</li> <li>• <b>Information Literacy</b> - Information literacy includes the ability to identify, find, evaluate, and use information effectively. From effective search strategies to evaluation techniques, students learn how to evaluate the quality, credibility, and validity of websites, and give proper credit. (Will be covered in more detail in the Unit on Research)</li> <li>• <b>Cyberbullying</b> - Students learn what to do if they are involved in a cyberbullying situation. They explore the roles people play and how individual actions — both negative and positive — can impact their friends and broader communities. Students are encouraged to build positive, supportive online communities.</li> <li>• <b>Internet Safety</b> - Students explore how the Internet offers an amazing way to collaborate with others world-wide, while staying safe through employing strategies such as distinguishing between inappropriate contact and positive connections.</li> <li>• <b>Relationships and Communication</b> - Students reflect on how they can use intrapersonal and interpersonal skills to build and strengthen positive online communication and communities. They delve into the concept of digital citizenship and digital ethics, and they reflect on their online interactions.</li> </ul>

<p><b>Essential Questions (Instructional Objective)</b></p>	<ol style="list-style-type: none"> <li>1. What information can you share online? What information should you not share online?</li> <li>2. What should you do to protect you and your friends from cyberbullies?</li> <li>3. Which Websites are a good source of information? Which Websites will not provide you with reliable/trusted information?</li> <li>4. What is an advertisement and what is an authentic informative Website?</li> <li>5. What personal information should always remain private?</li> <li>6. How can you prove that you created something and take credit for what you created?</li> <li>7. How do you search on the Internet for best results?</li> <li>8. Why do you need a password to get onto the computer or different Websites?</li> <li>9. How can you communicate with people online? What different methods of communication are there?</li> <li>10. How can you protect yourself from identity theft?</li> <li>11. What is plagiarism? When is it okay to use the work of others?</li> <li>12. When is it okay to alter photos digitally? How should it be done to protect the owner and subject?</li> <li>13. When is it okay to talk to a stranger online?</li> <li>14. How is cyberbullying different from in-person bullying? How should you handle it?</li> </ol>
<p><b>Content (Subject Matter)</b></p>	<ul style="list-style-type: none"> <li>• Internet Safety</li> <li>• Privacy and Security</li> <li>• Relationships and Communication</li> <li>• Cyberbullying</li> <li>• Digital Footprint and Reputation</li> <li>• Self-image and Identity</li> <li>• Information Literacy</li> <li>• Creative Credit and Copyright</li> </ul>
<p><b>Skills/ Benchmarks (CCSS Standards)</b></p>	<p><b>CCSS.ELA-LITERACY.W.5.6</b> With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.</p> <p><b>CCSS.ELA-LITERACY.W.4.6</b> With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.</p> <p><b>CCSS.ELA-LITERACY.W.3.6</b> With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.</p> <p><b>CCSS.ELA-LITERACY.W.2.6</b> With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.</p> <p><b>NJ TECHNOLOGY 8.1.2.A.1</b> Identify the basic features of a digital device and explain its purpose.</p> <p><b>NJ TECHNOLOGY 8.1.2.D.1</b> Develop an understanding of ownership of print and nonprint information.</p> <p><b>NJ TECHNOLOGY 8.1.5.D.1</b> Understand the need for and use of copyrights.</p> <p><b>NJ TECHNOLOGY 8.1.5.D.2</b> Analyze the resource citations in online materials for proper use.</p>

	<p><b>NJ TECHNOLOGY 8.1.5.D.3</b> Demonstrate an understanding of the need to practice cyber safety, cyber security, and cyber ethics when using technologies and social media.</p> <p><b>NJ TECHNOLOGY 8.1.5.D.4</b> Understand digital citizenship and demonstrate an understanding of the personal consequences of inappropriate use of technology and social media.</p>
<b>Materials and Resources</b>	Chromebook or other digital device, Internet, commonsense.org, brainpop.com
<b>Notes</b>	

<b>Grade: 2-5</b> <b>Subject: Digital</b> <b>“Tech-Knowledge”</b>	<b>Unit of Study: Programming</b>
<b>Big Idea/Rationale</b>	<p>Computers are a big part of our society. Everything we do involves technology. Computer programs run all of the technology available such as computers, cash registers, ATMs, cellphones, tablets, etc.</p>
<b>Enduring Understanding (Mastery Objective)</b>	<ul style="list-style-type: none"> <li>• Computer systems have evolved and become an intrinsic part of everyday life, both personal and in the workforce</li> <li>• Hardware and software work together to accomplish complex tasks</li> <li>• A computer program is a set of instructions created to perform the steps specified in an algorithm</li> </ul>
<b>Essential Questions (Instructional Objective)</b>	<ol style="list-style-type: none"> <li>1. What is a computer program?</li> <li>2. Describe the types of applications that can be made through the use of a computer program.</li> <li>3. Define algorithm.</li> <li>4. What is a conditional statement?</li> <li>5. Write a program using conditional statements.</li> <li>6. Can you debug a pre-written program?</li> <li>7. What is binary code?</li> </ol>
<b>Content (Subject Matter)</b>	<ul style="list-style-type: none"> <li>• Identify web programming languages</li> <li>• Identify the types of applications that can be made through the use of a computer program</li> <li>• Identify situations where the use of looping is appropriate</li> <li>• Explain the difficulty of translating real problems into programs</li> <li>• Demonstrate that ideas may feel clear and yet still be misinterpreted by a computer</li> </ul>
<b>Skills/ Benchmarks (CCSS Standards)</b>	<p><b>CCSS.MATH.2.G.2</b> Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.</p> <p><b>CCSS.ELA.SL.1.1</b> - Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.</p> <p><b>CCSS.ELA.SL.1.2</b> - Ask and answer questions about key details in a text read aloud or information presented orally or through other media.</p> <p><b>CCSS.ELA.L.1.6</b> - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships.</p> <p><b>CCSS.ELA.SL.2.1</b> - Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.</p> <p><b>CCSS.ELA.SL.2.2</b> - Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.</p> <p><b>CCSS.ELA.L.2.6</b> - Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.</p> <p><b>CCSS.ELA.SL.3.1</b> - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.</p>

	<p><b>CCSS.ELA.SL.3.3</b> - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.</p> <p><b>CCSS.ELA.L.3.6</b> - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships.</p> <p><b>NJ TECHNOLOGY 8.1A Grade 2 CPI 4</b> Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).</p> <p><b>NJ TECHNOLOGY 8.1E Grade 2 CPI 1 S</b> Use digital tools and online resources to explore a problem or issue.</p> <p><b>NJ TECHNOLOGY 8.2C Grade 2 CPI 1</b> Brainstorm ideas on how to solve a problem or build a product.</p> <p><b>NJ TECHNOLOGY 8.2C Grade 2 CPI 2</b> Create a drawing of a product or device that communicates its function to peers and discuss.</p> <p><b>NJ TECHNOLOGY 8.2E Grade 2 CPI 1</b> List and demonstrate the steps to an everyday task.</p> <p><b>NJ TECHNOLOGY 8.2E Grade 2 CPI 2</b> Demonstrate an understanding of how a computer takes input through a series of written commands and then interprets and displays information as output.</p> <p><b>NJ TECHNOLOGY 8.2E Grade 2 CPI 3</b> Create algorithms (a sets of instructions) using a pre-defined set of commands (e.g., to move a student or a character through a maze).</p> <p><b>NJ TECHNOLOGY 8.2E Grade 2 CPI 4</b> Debug an algorithm (i.e., correct an error).</p> <p><b>NJ TECHNOLOGY 8.2E Grade 2 CPI 5</b> Use appropriate terms in conversation (e.g., basic vocabulary words: input, output, the operating system, debug, and algorithm).</p> <p><b>NJ TECHNOLOGY 8.1A Grade 5 CPI 1</b> Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.</p> <p><b>NJ TECHNOLOGY 8.2E Grade 5 CPI 1</b> Identify how computer programming impacts our everyday lives.</p> <p><b>NJ TECHNOLOGY 8.2E Grade 5 CPI 2</b> Demonstrate an understanding of how a computer takes input of data, processes and stores the data through a series of commands, and outputs information.</p> <p><b>NJ TECHNOLOGY 8.2E Grade 5 CPI 3</b> Using a simple, visual programming language, create a program using loops, events and procedures to generate specific output.</p> <p><b>NJ TECHNOLOGY 8.2E Grade 5 CPI 4</b> Use appropriate terms in conversation (e.g., algorithm, program, debug, loop, events, procedures, memory, storage, processing, software, coding, procedure, and data).</p>
<b>Materials and Resources</b>	Chromebook or other digital device, Internet, Code.org, Typingagent.com
<b>Notes</b>	

<b>Grade: 2-5</b> <b>Subject: Digital</b> <b>“Tech-Knowledge”</b>	<b>Unit of Study: Multimedia Presentations</b>
<b>Big Idea/Rationale</b>	Multimedia presentations are a graphic means of presenting information to enhance a message.
<b>Enduring Understanding (Mastery Objective)</b>	<ul style="list-style-type: none"> <li>• Multimedia presentations allow presenters to display information visually which makes the delivery of the content more efficient and the information more memorable</li> <li>• Multimedia presentations can display images, graphs, charts, video, audio, and other components that make the content more interesting and easier to understand</li> </ul>
<b>Essential Questions (Instructional Objective)</b>	<ol style="list-style-type: none"> <li>1. What are the characteristics of a successful multimedia presentation?</li> <li>2. How are multimedia presentations used in school? Outside of school?</li> <li>3. How can you make your presentation visually appealing?</li> <li>4. When should you use graphics? Video? Animations? Transitions?</li> </ol>
<b>Content (Subject Matter)</b>	<ul style="list-style-type: none"> <li>• Students will be able to communicate information and ideas to multiple audiences using a variety of media and formats</li> <li>• Students will create an outline and research different multimedia formats</li> <li>• Students will use media format of their choice</li> </ul>
<b>Skills/ Benchmarks (CCSS Standards)</b>	<p><b>CCSS.ELA-LITERACY.W.5.6</b> With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.</p> <p><b>CCSS.ELA-LITERACY.W.4.6</b> With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.</p> <p><b>CCSS.ELA-LITERACY.W.3.6</b> With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.</p> <p><b>CCSS.ELA-LITERACY.W.2.6</b> With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.</p> <p><b>CCSS.ELA-LITERACY.W.5.7</b> Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.</p> <p><b>CCSS.ELA-LITERACY.W.5.8</b> Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.</p> <p><b>CCSS.ELA-LITERACY.W.5.9.A</b> Apply grade 5 Reading standards to literature (e.g., "Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]").</p> <p><b>NJ TECHNOLOGY 8.1.2.A.1</b> Identify the basic features of a digital device and explain its purpose.</p> <p><b>NJ TECHNOLOGY 8.1.2.D.1</b> Develop an understanding of ownership of print and nonprint information.</p> <p><b>NJ TECHNOLOGY 8.1.5.D.1</b> Understand the need for and use of copyrights.</p>



	<p><b>NJ TECHNOLOGY 8.1.5.D.2</b> Analyze the resource citations in online materials for proper use.</p> <p><b>NJ TECHNOLOGY 8.1.5.D.3</b> Demonstrate an understanding of the need to practice cyber safety, cyber security, and cyber ethics when using technologies and social media.</p> <p><b>NJ TECHNOLOGY 8.1.5.D.4</b> Understand digital citizenship and demonstrate an understanding of the personal consequences of inappropriate use of technology and social media.</p> <p><b>NJ TECHNOLOGY 8.1.5.A.1</b> Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.</p> <p><b>NJ TECHNOLOGY 8.1.5.B.1</b> Collaborative to produce a digital story about a significant local event or issue based on first-person interviews.</p> <p><b>NJ TECHNOLOGY 8.1.5.E.1</b> Use digital tools to research and evaluate the accuracy of, relevance to, and appropriateness of using print and non-print electronic information sources to complete a variety of tasks.</p>
<b>Materials and Resources</b>	Chromebook or other digital device, Internet, multimedia program or application
<b>Notes</b>	