# NFCSD Technology Scope and Sequence Aligned with ISTE standards

Use this scope and sequence to identify prerequisite technology skills and recognize students' proficiency and progression across grade levels. This technology plan is designed to provide an evolving blueprint for district technology efforts and is based on the belief that technology should be embedded, used for critical thinking and used as a tool to support all stakeholders.

The following standards are to be appropriately addressed at each grade level Pre-K through 6:

- Digital Citizenship
  - Understand and comply with district rules and guidelines as outlined in the NFCSD Acceptable Use Policy (AUP)
  - Use technology responsibly and make safe choices
  - Understand how to be safe online and in a digital world
  - Understand the importance of not sharing personal information online
  - Understand how to practice safe internet searches
  - Understand the positive and negative effects that social media sites can have on one's life
  - Set appropriate profile pictures and content across web pages
  - Understand that digital content is permanent
  - Build a positive digital footprint/reputation
  - Understand how browser settings track personal information
  - Use age-appropriate search engines to find information
  - Demonstrate respect and responsibility in all communications
  - Use passwords/passcodes to secure individual devices
  - Keep passwords confidential and be proactive if they are compromised

Key:

| | |
|---|---|
| I | Introduced |
| M | Met |
| ☐ | Completed |

*** Completed Tasks may require review or remediation each year as needed.

| Technology Operations and Concepts (1.0) | K | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| 1.1 Be able to turn a computer on and off. | I | M | | | | | |
| 1.2 Identify the basic components of a computer: monitor, keyboard, mouse/trackpad, headphones, volume button and ports. | I | M | | | | | |
| 1.3 Use touchscreens appropriately. | I | M | | | | | |
| 1.4 Identify and use correct desktop icons. | I | M | | | | | |
| 1.5 Log in and out of laptop and/or hand-held device. | I | M | | | | | |
| 1.6 Use a mouse or trackpad to manipulate shapes, icons; click on URLs, radio buttons, check boxes; use scroll bar. | I | M | | | | | |
| 1.7 Use desktop icons, windows and menus to open and close applications and documents; understand difference between closing and quitting application. | I | M | | | | | |
| 1.8 Use login credentials for access to network devices and accounts. | I | M | | | | | |
| 1.9 Correctly manipulate the basic components of computer, monitor, keyboard, mouse, headphones, volume controls and ports. | I | M | | | | | |
| 1.10 Keep passwords confidential, and be proactive if they are compromised. | | I | M | | | | |
| 1.11 Use keyboarding programs and games to assist in development of skills. | | I | M | | | | |
| 1.12 Locate and use letter and number keys with correct left and right hand placement (home row). | | I | M | | | | |
| 1.13 Locate and use correct finger/hand for space bar, return/enter and shift key. | | I | M | | | | |
| 1.14 Learn to use special characters as needed | | | I | M | | | |
| 1.15 Use refresh, forward and back buttons to navigate a web browser. | | | I | M | | | |

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|---|---|---|---|---|---|---|---|
| 1.16 Create bookmarks and add frequently used sites to the bookmark bar. | | | I | M | | | |
| 1.17 Use Shortcuts to operate the computer (i.e. Control-P, Control-C, etc) | | | | I | M | | |
| 1.18 Use Print Dialogue Box and change settings (i.e. number of copies, orientation, paper size, etc) | | | | I | M | | |
| 1.19 Use login credentials for access to network devices and accounts. | | | | I | M | | |
| 1.20 Name documents with appropriate file names and understand where files are being saved. | | | | I | M | | |
| 1.21 Find and retrieve documents that you saved. | | | | I | M | | |
| 1.22 Create, save, edit, copy and rename files and folders to organize documents in a digital portfolio. | | | | I | M | | |
| 1.23 Delete files and folders. | | | | I | M | | |
| 1.24 Use search tools to locate files and applications. | | | | I | M | | |
| 1.25 Download, upload and attach files through email. | | | | | I | M | |
| 1.26 Utilize basic troubleshooting steps to solve technical problems independently. | | | | | | I | M |
| 1.27 Apply prior technical knowledge and experiences to figure out how new technologies or applications work. | | | | | | I | M |
| 1.28 Create, save, edit, copy and rename files and folders to organize a digital portfolio related to one's learning. | | | | | | I | M |
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| **Problem Solving and Computational Thinking (2.0)** | **K** | **1** | **2** | **3** | **4** | **5** | **6** |
|---|---|---|---|---|---|---|---|
| 2.1 Be able to identify and press the correct symbol on the screen to proceed to the next page. For example, the next button or when the cursor turns into a hand. | I | M | | | | | |
| 2.2 Use technology tools to represent solutions to problems in a variety of ways including text sound, pictures and numbers. (Bee Bots STEM Activity) | | I | M | | | | |
| 2.3 Use technology resources and tools to solve age-appropriate computing problems or for independent learning. (Bee Bots STEM Activity) | | I | M | | | | |
| 2.4 Define an algorithm as a sequence of instructions and use the basic steps of algorithm thinking to solve problems and design solutions. (Bee Bots STEM Activity) | | I | M | | | | |
| 2.5 Use a block based visual programming interface to build a game, tell a story or solve a problem. (Lego, Spero STEM Activity) | | | I | M | | | |
| 2.6 Students learn about being "green" by determining the most environmentally friendly path for a delivery truck to take in a fictional community. (STEM Activity) | M | | | | | | |
| 2.7 Students learn about forces by experimenting with gravity and mass in order to help the Three Little Pigs use a sled to get away from the Big Bad Wolf. (STEM Activity) | I | M | | | | | |
| 2.8 Students learn about the properties of materials as they work to design a mat for their fictional puppy to wipe his/her paws off after playing outside in the rain. (STEM Activity) | | I | M | | | | |
| 2.9 Students learn about the uses of magnets as the design a fish tank cleaning tool. (STEM Activity) | | | I | M | | | |
| 2.10 Students work as environmental engineers to design a tool to help clean up an oil spill. (STEM Activity) | | | | I | M | | |
| 2.11 Students work as aerospace engineers to design a parachute that will work on a different planet. (STEM Activity) | | | | | I | M | |
| 2.12 Students work as biomedical engineers to design a knee brace for an injured friend. (STEM Activity) | | | | | | I | M |

| **Research and Information Fluency (3.0)** | **K** | **1** | **2** | **3** | **4** | **5** | **6** |
|---|---|---|---|---|---|---|---|
| 3.1 Use age-appropriate search engines to find information. | | I | M | | | | |
| 3.2 Use browser search tools and advanced search features to find information. | | | I | M | | | |
| 3.3 Use a browser's history feature to locate previously visited sites. | | | I | M | | | |
| 3.4 Locate the URL of a website. | | | | I | M | | |
| 3.5 Proofread and edit writing using Spellcheck and Grammar check. | | | | I | M | | |
| 3.6 Use tab browsing to navigate multiple pages. | | | | I | | M | |
| 3.7 Use a word processing application to write, edit, print and save assignments. | | | | I | | | M |
| 3.8 Use the menu/tool bar functions to format, edit and print a document. | | | | I | | | M |
| 3.9 Highlight, copy and paste text within a document or outside source. | | | | I | | | M |
| 3.10 Copy, paste, insert and resize images found from outside sources. | | | | I | | | M |
| 3.11 Locate required citation information on web pages and other digital resources and cite in the appropriate style. | | | | I | | | M |
| 3.12 Use the menu/toolbar functions to format a paper using MLA, APA or other appropriate style. | | | | I | | | M |
| 3.13 Proofread and edit writing using built in resources (i.e. dictionary, spell checker, thesaurus, and grammar check). | | | | I | | M | |
| 3.14 Understand that spreadsheets, databases and other specialized data tools are used to collect, manage, analyze and visualize data. | | | | I | | | M |
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| **Creativity and Innovation (4.0)** | **K** | **1** | **2** | **3** | **4** | **5** | **6** |
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| 4.1 Identify, name, and find the basic digital tool, cursor. | I | M | | | | | |
| 4.2 Be able to move the cursor to a new location on their screen. | I | M | | | | | |
| 4.3 Identify, find and name underline, bold, and italics tools. | I | M | | | | | |
| 4.4 Use underline, bold, italicize and manipulate text tools. | | I | M | | | | |
| 4.5 Use copy and paste, indent, insert pictures and delete. | | I | | M | | | |
| 4.6 Use basic paragraphing with Tab and spacing. | | I | | | M | | |
| 4.7 Create and edit a multimedia presentation. | | I | | | M | | |
| 4.8 Create a series of slides and organize them to present research or convey an idea. | | I | | | M | | |
| 4.9 Copy/Paste or import graphics within a multimedia presentation. Be able to change their size and position on a slide. | | I | | | M | | |
| 4.10 Use email to share information (Office 365) | | | I | | | M | |
| 4.11 Use digital tools (i.e. Drawing tools, selection tools, text tools, color palette) to manipulate text and images. | | I | | | | | M |
| 4.12 Use word processing tools to compose and send an email. | | | I | | | | M |
| 4.13 Attach a document or file to an email. | | | | I | | | M |
| 4.14 Use age appropriate note-taking tools. | | | I | | | | M |
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| **Digital Citizenship (5.0)** | **K** | **1** | **2** | **3** | **4** | **5** | **6** |
|---|---|---|---|---|---|---|---|
| 5.1 Can successfully log out of computer in order protect created work. | I | | | | | | |
| 5.2 Can properly care for and use headphones and laptops. | I | M | M | M | | | |
| 5.3 Transfer the information learned from online sources in your own words. | | | I | M | | | |
| 5.4 Evaluate whether sources/websites are safe to conduct research. | | | I | | M | | |
| 5.5 Use a browser's history to locate a previous site. | | | I | | | M | |
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| **Communication and Collaboration (6.0)** | **K** | **1** | **2** | **3** | **4** | **5** | **6** |
|---|---|---|---|---|---|---|---|
| 6.1 Access school website as needed. | | | I | M | | | |
| 6.2 Learn to use special characters as needed (i.e. accents, tildas) | | | I | | M | | |
| 6.3 Use email to share information (Office 365) | | | | I | | M | |
| 6.4 Know the difference between reply, reply-all and forward when responding to an email. | | | | I | | M | |
| 6.5 Use digital tools to connect, collaborate and share. | | | | | I | M | |
| 6.6 Use a course or learning management system to access class pages, class calendars, portfolios and grades. | | | | | I | M | |
| 6.7 Use features of a course or learning management system to access and complete assignments. | | | | I | | M | |
| 6.8 Access informational websites as needed. | | | | I | | M | |
| 6.9 Set-up, share, and utilize collaborative workspaces, documents or other digital tools. | | | | | I | M | |
| 6.10 Use digital tools to connect, collaborate and share. | | | | | I | M | |
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