

# Keyboarding/Foundational Tech Skill Instruction Proposal

## Workgroup recommendations from 4/20/17 meeting

### Timeline & Implementation Plan

#### Why Keyboarding/Foundational Tech Skill Instruction is Important?

- to allow students to develop proficiency in skills necessary to participate in a variety of essential learning experiences
- to amplify learning with technology
- to challenge students to be agents of their own learning
- to demonstrate and share their knowledge successfully
- to give students the skills to be confident and productive digital citizens beyond graduation

Mastering Keyboarding and Foundational Tech skills will ensure that students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and to transfer their knowledge to explore emerging technology. (ISTE Student Standard 1d)

#### What the research says:

##### Screen time and Use of Technology:

Screen time, for the purpose of passive consumption or entertainment, should be limited in an educational setting based on the American Academy of Pediatrics (AAP) Guidelines. However,

- When used intentionally and appropriately and in support of learning standards, technology and interactive media are effective tools to support learning and development. ([NAEYC](#))
- Attention to digital citizenship and equitable access is essential.

Current AAP recommendations:

- 18 months and younger – screen media other than video chatting should be discouraged.
- 18-24 months – high-quality apps used together with an adult. Letting children use media on their own should be discouraged.

- 2 years and older – 1 hour per day or less of high quality programming and create a [family media plan](#) to ensure that all students get adequate sleep (8-12 hours depending on age), physical activity (1 hour a day) and screen free time.
- [Children 5-18 years of age](#) - There is no one size fits all screen time recommendation for school aged children. Intentionality and the appropriateness of the tool for learning are important to consider. It's also important for families to create family media plans to help manage screen time at home.

Workgroup recommendations:

- Work with teachers to be intentional about choosing technology and programs that fit purposeful learning objectives.
- Teach students to be good digital citizens and to be skeptical consumers of online content.
- Encourage teachers to provide a balance of screen time and activity in their classrooms.
- Encourage families, and provide resources for them, to create Family Media Plans to help balance screen time between home and school.

### **Keyboarding:**

"Keyboarding instruction bolsters fluency and automaticity. Touch typing is a skill that will help all students in their education, as well as their later careers, by making the physical production of their texts efficient, leaving them with more cognitive freedom to develop ideas and arguments. Some research also shows that students write essays with more words and sentences when they type. (Barrera, 2001; Goldberg, Russell, & Cook, 2003)"

"Keyboard fluency affects writing quality. Studies show that if children are not systematically taught keyboarding skills, their writing quality is poorer when compositions are typed versus hand written (Connelly, Gee, & Walsh, 2007; Suhr, Hernandez, Grimes, & Warschauer, 2010). Interestingly, some research shows that students who are comfortable writing with computers also achieve higher scores on handwritten writing tests (Silvernail, Pinkham, Wintle, Walker, & Bartlett, 2011)"

[From Written-Language Production Standards for Handwriting & Keyboarding Report](#)

**Workgroup Recommendations for Keyboarding/Foundational Tech Skills:** Equity and consistency of skills instruction across the district is the goal. Handwriting is still an important skill that is given the most attention in grades K-3. Cursive should be used to supplement or provide options for students with poor handwriting.

**Benefits:**

- Clear expectations by grade level
  - Links to lessons by skill rather than grade level in the transition period
- Common vocabulary
- Common tools (for benchmarking and basic instruction)

**Needs:**

- Online tool, provided by the district, to give a consistent benchmarking assessment tool and basic practice.
- Accounts set up and connected to SIS
- Other sites whitelisted to provide variety of practice options

**Time Recommendations:**

- **No more than 30 minutes a week of independent keyboarding practice (average 10 min three days a week – no more than 15 min in a single sitting)**

## Implementation Plan:

The goal would be to use this year for the following purposes:

- Pull together Elementary Building Support Techs & Interested teachers to review current keyboarding curriculum and discuss what would be needed for full implementation for 18/19.
- Fully adopt a curriculum and do a software adoption process to compare, choose, pilot and purchase a program to use for practice and benchmark testing purposes K-6.
- Develop building plans for training, piloting and implementing consistent keyboarding & fundamental tech skills K-6.
- Determine and Plan for implementation training and ongoing support for summer and fall.

## Timeline (Revised)

- **March 1st 4:00 – 6:00pm** Meeting of teachers interested in beginning keyboarding instruction and participating in selection of tool & curriculum.
  - Review purpose of keyboarding/foundational skills instruction (proposal)
  - Review standards
  - Review adoption/implementation timeline
  - Brainstorm benefits and challenges to keyboarding instruction
  - Develop criteria for selection of curriculum & keyboarding program
- **March 13th 4:00 – 6:00pm** Meet to use criteria to review curriculum and keyboarding programs. Narrow down to two programs. Choose teachers for pilot of practice software. Ask all teachers to pilot curriculum, at least 4 lessons.
- **April 25th 4:00 – 6:00pm**
  - Review selections & Hear from Pilot Teachers
  - Make final recommendation
  - Brainstorm implementation issues and training needs
- **April 30th** – Recommendations to Cabinet
- **May - June**
  - Building Techs help buildings develop implementation plan for Fall
  - Provide PD for teachers on tech standards and keyboarding/foundational skills instruction
- **Aug/Sept**
  - Provide additional support and training
  - Onboard new teachers
  - Year one (18/19) – interested teachers (Preferably one teacher per grade level so we can judge impact for year 2)
  - Year two (19/20) – full implementation K-6

**What keyboarding/foundational skills might look like by grade level**

Kindy	1st
<p><b>Digital Citizenship (in collaboration with librarian using Common Sense Media lessons):</b></p> <ul style="list-style-type: none"> <li>• Going Places Safely</li> <li>• ABC Searching</li> <li>• Keep it Private</li> <li>• My Creative Work</li> <li>• Sending E-mail</li> </ul> <p><b>Keyboarding:</b></p> <p><b>WLP.K.9.</b> With assistance, identify a keyboard and mouse.</p> <ol style="list-style-type: none"> <li>a. Understand that a keyboard contains letters and numbers.</li> <li>b. Identify several letters on a keyboard.</li> <li>c. Identify numbers on a number pad.</li> <li>d. Identify a mouse.</li> <li>e. <i>Identify a stylus as different from a crayon or pencil</i></li> <li>e. <i>Introduce proper posture.</i></li> <li>f. <i>Type user name and password</i></li> </ol> <p><b>Foundational Skills:</b></p> <ul style="list-style-type: none"> <li>• Understand log in process, practice finding letters and numbers for user name and pin (identifying letters and numbers on a keyboard)</li> <li>• Open a website using a link</li> <li>• Use trackpad, mouse or stylus for navigation</li> </ul>	<p><b>Digital Citizenship (in collaboration with librarian using Common Sense Media lessons):</b></p> <ul style="list-style-type: none"> <li>• Staying Safe Online</li> <li>• Follow the Digital Trail</li> <li>• Screen out the Mean</li> <li>• Using Keywords</li> <li>• Sites I Like</li> </ul> <p><b>Keyboarding:</b></p> <p><b>WLP.1.9.</b> Know and apply basic keyboarding skills.</p> <ol style="list-style-type: none"> <li>a. Identify all letters on a keyboard and that they are not in alphabetical order.</li> <li>b. Use left hand to depress letter keys on the left side of the keyboard and vice versa.</li> <li>c. Identify the space bar and its function.</li> <li>d. Use a mouse and understand “clicking” and “double clicking.”</li> </ol> <p><b>Foundational Skills:</b></p> <ul style="list-style-type: none"> <li>• Independently log on with personal user name and password by the end of year</li> <li>• Interact with digital media (pause, stop, play, adjust volume, directional arrows, NEXT, BACK)</li> <li>• Click, hold and drag items</li> <li>• Backspace and Enter keys</li> <li>• Click, drag and double click</li> </ul>

- Use directional arrows on keyboard as well as mouse or trackpad and scroll bars to navigate horizontally and vertically through a website

**2<sup>nd</sup>**

**Digital Citizenship (in collaboration with librarian using Common Sense Media lessons):**

- Powerful Passwords
- My Online Community
- Things for Sale
- Show Respect Online
- Writing Good Emails

**Keyboarding:**

- WLP.2.9.** Demonstrate basic knowledge of keyboard entry and mouse clicking.
- a. With different fingers and both hands, type the alphabet in order using a keyboard.
  - b. Identify the Enter key and its function.
  - c. Understand that clicking the mouse makes an insertion point in a document.
  - d. Use the mouse to highlight (double-click) a word.

**Foundational Skills:**

- Copy and paste (using right click and Ctrl+C, Ctrl+V)
- Highlight text
- Click, hold and drag highlighted text
- Read and navigate digital texts and respond to questions

**3<sup>rd</sup>**

**Digital Citizenship (in collaboration with librarian using Common Sense Media lessons & Digital Passport Online games):**

- Rings of Responsibility
- Private & Personal Information
- The Power of Words
- The Key to Keywords
- Whose is it, Anyway?

**Keyboarding:**

- WLP.3.9.** Know and apply grade-level keyboarding skills.
- a. Find home keys by their “bumps” without looking at keyboard.
  - b. Identify which fingers type which letters on standard QWERTY keyboard.
  - c. Use the left little finger on the Shift key to capitalize letters on the right side of the keyboard and vice versa.
  - d. Understand the difference between the Shift and Caps Lock keys.
  - e. Use thumb to depress the space bar.
  - f. Type non-word drills while looking at the keyboard.
  - g. Practice typing with the keyboard covered or masked.
  - h. Type several letters and words without looking at keyboard.
  - i. Know and apply grade-level skills with other devices (e.g., use a mouse to highlight portions of text, use right-click to access alternative menus).

- Use information from printed texts (scratch paper, printed article) to answer questions digitally
- Answer comprehension questions from a video
- Transfer numbers accurately from screen to paper
- Use of interactive tools (number lines, manipulatives)
- Expand and collapse windows (minimize and maximize)

**Foundational Skills:**

- Compose by typing directly into a word processor
- Flag or book mark items, create favorites in a browser
- Compose digitally from printed text (graphic organizer, plan, draft, revise)
- Navigate multiple browser windows
- Split screen and open two windows simultaneously
- Use of mathematical symbols (+, -, x, /) in responses
- Read numbers and text from one area and type into another

**4th**

**5th**

**Digital Citizenship (in collaboration with librarian using Common Sense Media lessons & Digital Passport Online games):**

- Strong Passwords
- Digital Citizenship Pledge
- You've Won a Prize
- How to Cite a Site
- Picture Perfect

**Digital Citizenship (in collaboration with librarian using Common Sense Media lessons & Digital Passport Online games):**

- Talking Safely Online
- Super Digital Citizen
- Privacy Rules
- What's Cyberbullying
- Selling Stereotypes

**Keyboarding:**

- WLP.4.4.** Use a keyboard to create written documents.
- Consistently use the home keys (A, S, D, F, J, K, L, ;).
  - Type words and sentences with punctuation, increasing the proportion of time not looking at the keyboard.
  - Use the Enter key to create new paragraphs.
  - Use the Backspace and Delete keys to remove text.
  - Type special characters (\$, #, \*, etc.) as needed with proper finger strokes, including little finger on the Shift key.
- WLP.4.5.** Demonstrate an understanding of proper spacing in electronic text.

**Keyboarding:**

- WLP.5.4.** Use a keyboard to create written documents.
- Consistently use the home keys.
  - Consistently type words and sentences with punctuation without looking at the keyboard.
  - Maintain accuracy in typed documents.
- WLP.5.5.** Demonstrate an understanding of spacing choices in electronic text.
- Use the spacebar and Tab key as appropriate for the deliberate spacing of typed text.
  - Understand and create superscript and subscript text.

- a. Enter one space between words and after punctuation marks.
  - b. Recognize the space differences (kerning) between common typefaces (e.g., Arial versus Times New Roman)
- WLP.4.7.** Create accurate typed text with speed appropriate for grade 4.
- a. Type 10–15 words per minute from copy.
  - b. Increase proportion of their time looking away from the keyboard.

**Foundational Skills:**

- WLP.4.9.** Know and apply grade-level keyboarding skills.
- a. Use keyboarding skills for a variety of class work, such as spelling lists and composition.
  - b. Type most high-frequency words (*the, I, and*, etc.) and first and last name without looking at keyboard.
  - c. Increase the proportion of time looking away from the keyboard.
  - d. Type at least one page in a single setting. Use directional arrows on keyboard as well as mouse or trackpad and scroll bars to navigate horizontally and vertically through a website.
- WLP.4.10.** Demonstrate beginning knowledge of word processing skills to produce written text.
- a. Create a new file.
  - b. Type out a document first written by hand.
  - c. Open an existing file.
  - d. Use menu and ruler formatting tools to change margins.
  - e. Use menu-driven commands to change paragraph settings (justification, indentation, line spacing).
  - f. Understand how a computer stores files and save a file to the correct location.

- c. Understand paragraph spacing (single-spaced, double-spaced) and spacing between lines of a paragraph (leading).
  - d. Understand paragraph justification and use the paragraph justification menu.
- WLP.5.7.** Create accurate typed text with speed appropriate for grade 5.
- a. Type 15–20 words per minute from copy.
  - b. Spend most of the time looking at the screen or the copy instead of the keyboard.

**Foundational Skills:**

- WLP.5.9.** Know and apply grade-level keyboarding skills.
- a. Type most words and sentences without looking at the keyboard.
  - b. Achieve 85% accuracy in typed documents.
  - c. Use numeric keypad for entry of numbers as appropriate for the task.
  - d. Access function keys as needed in software applications.
  - e. Type at least two pages in a single setting.
- WLP.5.10.** Demonstrate knowledge of basic word processing skills to produce written text.
- a. Electronically edit a previously saved document.
  - b. Experiment with basic text formatting tools to change font, size, color, and style (bold, italic, underline), using both menus and key commands.
  - c. Use common keyboard shortcuts (e.g., CTRL + z to undo).
  - d. Navigate to save a file to removable media (flash drive, CD-ROM).
  - e. Insert an image into text.
  - f. Demonstrate efficient text editing (copy and paste, highlight and move, keystrokes) techniques.



## 6th

**Digital Citizenship (in collaboration with librarian using Common Sense Media lessons & Digital Compass Online dilemmas and practice decision making):**

- Digital Life 101
- Strategic Searching
- Scams & Schemes
- Cyberbullying: Be Upstanding
- A Creator's Rights

### **Keyboarding:**

**WLP.6.4.** Maintain accuracy in typed text.

- a. Type on nonstandard keyboards (e.g., smartphones) with accuracy.

**WLP.6.5.** Demonstrate an understanding of spacing choices in electronic text.

- a. Use advanced spacing tools (leading, character spacing, etc.) for visual effect.
- b. Use the rule to adjust paragraph indentation.
- c. Choose final text sizes appropriate for the task and audience.

**WLP.6.7.** Create accurate typed text with speed appropriate for grade 6.

- a. **Type 20–25 words per minute from copy.**
- b. Look at the screen or the copy instead of the keyboard.

### **Foundational Skills:**

**WLP.6.9.** Know and apply grade-level keyboarding skills.

- a. Type words and sentences without looking at keyboard.
- b. **Achieve 90% accuracy in typed documents.**
- c. Access function keys as needed in software applications.
- d. **Type at least three pages in a single setting.**

## 7th

**Digital Citizenship (in collaboration with librarian using Common Sense Media lessons & Digital Compass Online dilemmas and practice decision making):**

- My Media
- A Creator's Responsibilities
- Safe Online Talk
- Which Me Should I Be?
- Gender Stereotypes Online

### **Keyboarding:**

**WLP.7.4.** Maintain accuracy in typed documents. a. Type on nonstandard keyboards (e.g., tablet touchscreen keyboards) with accuracy.

**WLP.7.5.** Demonstrate an understanding of spacing choices in electronic text.

- a. Identify appropriate spacing between text and images for visual appeal.
- b. Access and use the page layout menu to adjust document margins.
- c. Choose final text sizes appropriate for the task and audience.

**WLP.7.7.** Create accurate typed text with speed appropriate for grade 7.

- a. **Type at least 25 words per minute from copy, looking almost exclusively at the screen or copy.**

### **Foundational Skills:**

**WLP.7.9.** Know and apply grade-level keyboarding skills.

- a. Type words and sentences without looking at keyboard.
- b. **Achieve 90% accuracy in typed documents.**
- c. Access function keys as needed in software applications.

**WLP.6.10.** Demonstrate knowledge of intermediate word processing skills to produce written text.

- a. Compose writing assignments at the keyboard.
- b. Use spell checker and thesaurus to augment editing.
- c. Understand and use headings.
- d. Add page numbers to documents.
- e. Format an inserted image (e.g., change wraparound).
- f. Access special characters' menu.

- Read dialogue boxes and respond to warnings

**d. Type at least five pages in a single setting.**

**WLP.7.10.** Demonstrate knowledge of intermediate word processing skills to produce written text.

- a. Understand and use common templates (e.g., built-in templates for letters, resumes, calendars).
- b. Understand the concept of “styles” and use the Style menu to create and change paragraph styles.
- c. Create and format bulleted and numbered lists.
- d. Insert a table into text.
- e. Use captions for images.
- f. Use drawing tools.
- g. Understand and use find-and-replace strategies as an editing task.

**8th**

**Digital Citizenship (in collaboration with librarian using Common Sense Media lessons & Digital Compass Online dilemmas and practice decision making):**

- Trillion Dollar Footprint
- Identifying High-Quality Sites
- The Reality of Digital Drama
- Cyberbullying: Crossing the Line
- Rework, Reuse, Remix

**Keyboarding:**

**WLP.8.4.** Maintain accuracy in typed documents.

- a. Type on nonstandard keyboards (e.g., tablet touchscreen keyboards) with accuracy.

**WLP.8.5.** Demonstrate an understanding of spacing choices in electronic text.

- a. Identify appropriate spacing between text and tables and within table cells for visual appeal.
- b. Access and use the page layout menu to adjust margins in different document sections.
- c. Choose final text sizes appropriate for the task and audience.

**WLP.8.7.** Create accurate typed text with speed appropriate for grade 8.

- a. Type at least 30 words per minute from copy, looking almost exclusively at the screen or copy.

**Foundational Skills:**

**WLP.8.9.** Know and apply grade-level keyboarding skills.

- a. Type words and sentences without looking at keyboard.
- b. Achieve 90% accuracy in typed documents.
- c. Access function keys as needed in software applications.
- d. Type at least seven pages in a single setting.

**WLP.8.10.** Demonstrate knowledge of advanced word processing skills to produce written text.

- a. Create and use a personal Style sheet.
- b. Understand and apply section breaks to create document parts with different layouts.
- c. Create a document with multiple columns.
- d. Create a basic Table of Contents using automated tools.
- e. Understand the use of automated references and bibliographies.
- f. Format tables in a text manually and understand how the Style menu applies to tables.
- g. Create a basic chart/graph using the tools provided by the word processing program.