Introduction

The following guidance is intended to support districts and schools as they develop pre-keyboarding skills and keyboarding skills in elementary students. This guidance has been adapted from Handwriting & Keyboarding: Standards for the Production & Presentation of Writing, as published by Handwriting Without Tears.

Keyboarding is a process that involves three phases (Perminger, Weiss, Weintraub 2004):

1. **COGNITIVE PHASE:** The student relies on visual feedback. The learner looks at their fingers or at the screen immediately after hitting a key.

2. **ASSOCIATIVE PHASE:** The student relies on kinesthetic cues.

3. **AUTONOMOUS PHASE:** The student relies primarily on kinesthetic feedback.
Kindergarten: Pre-Keyboarding Skills

K.1 Physical Approaches & Skill Development
Students will demonstrate physical development needed for keyboarding.
Each student will:
   A. Use proper posture and hand and body positions

K.2 Computer Readiness & Operations
Students will demonstrate the understanding of parts of a computer.
Each student will:
   A. Respect the computer and demonstrate safe and cooperative use of the computer
   B. Name the device components (keyboard, CPU, monitor, mouse, and touchpad)
   C. Understand that the keyboard is used to put text on a monitor
   D. Identify and understand how to click a mouse, touchpad, or touchscreen
   E. Learn to open (double-click) and close a software program
   F. Use index finger to key in a simple passcode/command on a computer
   G. Use Arrow keys while participating in grade-appropriate software activities
   H. Understand how to return to the main menu or home screen (ESC key, home button, etc.)
   I. Click on a basic print command
   J. Click, drag, and drop items using mouse, touchpad, or touchscreen

K.3 Pre-Keyboarding Skills
Students understand the use of simple keyboard commands.
Each student will:
   A. Use “writing” keys on a keyboard
      1. Recognize that “writing” keys produce a letter, number, or symbol
      2. Identify home row writing keys
      3. Place correct fingers on home row keys
      4. Use the Y key for YES and the N key for NO
      5. Begin to type simple words using “hunt and peck” method while maintaining right-hand and left-hand keyboard orientation
   B. Use “working” keys on a keyboard
      1. Recognize the keys and the jobs they do: Enter, Spacebar, Shift, Arrows, Tab, Backspace
      2. Use thumb on Spacebar to create spaces
First Grade: Pre-Keyboarding Skills

1.1 Physical Approaches & Skill Development
Students will demonstrate physical development needed for keyboarding. Each student will:
   A. Use proper posture and hand and body positions

1.2 Computer Readiness & Operations
Students will demonstrate the understanding of parts of a computer. Each student will:
   A. Respect the computer and demonstrate safe and cooperative use of the computer
   B. Name the device components (keyboard, CPU, monitor, mouse, and touchpad)
   C. Understand that the keyboard is used to put text on a monitor
   D. Identify and understand how to click a mouse, touchpad, or touchscreen
   E. Learn to open (double-click) and close a software program
   F. Use index finger to key in a simple passcode/command on a computer
   G. Use Arrow keys while participating in grade-appropriate software activities
   H. Understand how to return to the main menu or home screen (ESC key, home button, etc.)
   I. Click on a basic print command
   J. Click, drag, and drop items using mouse, touchpad, or touchscreen

1.3 Pre-Keyboarding Skills
Students understand the use of simple keyboard commands. Each student will:
   A. Use “writing” keys on a keyboard
      1. Recognize that “writing” keys produce a letter, number, or symbol
      2. Identify home row writing keys
      3. Place correct fingers on home row keys
      4. Use the Y key for YES and the N key for NO
      5. Begin to type simple words using “hunt and peck” method while maintaining right-hand and left-hand keyboard orientation
   B. Use “working” keys on a keyboard
      1. Recognize the keys and the jobs they do: Enter, Spacebar, Shift, Arrows, Tab, Backspace
      2. Use thumb on Spacebar to create spaces
Second Grade: Pre-Keyboarding Skills

2.1 Physical Approaches & Skill Development
Students will demonstrate physical development needed for keyboarding.
Each student will:
   A. Use proper posture and hand and body positions

2.2 Computer Readiness & Operations
Students will demonstrate the understanding of parts of a computer.
Each student will:
   A. Respect the computer and demonstrate safe and cooperative use of the computer
   B. Name the device components (keyboard, CPU, monitor, mouse, and touchpad)
   C. Understand that the keyboard is used to put text on a monitor
   D. Identify and understand how to click a mouse, touchpad, or touchscreen
   E. Learn to open (double-click) and close a software program
   F. Use index finger to key in a simple passcode/command on a computer
   G. Use Arrow keys while participating in grade-appropriate software activities
   H. Understand how to return to the main menu or home screen (ESC key, home button, etc.)
   I. Click on a basic print command
   J. Highlight, cut, copy, and paste text or images
   K. Select/deselect radio and check box buttons or answer options using a mouse, touchpad, touchscreen, or keyboard

2.3 Pre-Keyboarding Skills
Students understand the use of simple keyboard commands.
Each student will:
   A. Use “writing” keys on a keyboard
      1. Recognize that “writing” keys produce a letter, number, or symbol
      2. Identify home row writing keys
      3. Place correct fingers on home row keys
      4. Use the Y key for YES and the N key for NO
      5. Begin to type simple words using “hunt and peck” method while maintaining right-hand and left-hand keyboard orientation
      6. Place correct fingers on the row above and below home row using proper finger placement
   B. Use “working” keys on a keyboard
      1. Recognize the keys and the jobs they do: Enter, Spacebar, Shift, Arrows, Tab, Backspace
      2. Use thumb on Spacebar to create spaces
Third Grade: Keyboarding Skills

3.1 Physical Approaches & Skill Development
Students will demonstrate physical development needed for keyboarding.
Each student will:
   A. Use proper posture and hand and body positions

3.2 Computer Operations
Students will demonstrate an understanding of parts of a computer and word processing tools.
Each student will:
   A. Click on a basic print command
   B. Highlight, cut, copy, and paste text or images
   C. Select/deselect radio and check box buttons or answer options using a mouse, touchpad, touchscreen, or keyboard
   D. Understand the concepts of hardware, software, thumb drive, file, save, delete, edit
   E. Open a blank word processing file
   F. Understand how to save and retrieve a file

3.3 Keyboarding Skills
Students understand how to touch type in order to create text.
Each student will:
   A. Use “writing” keys on a keyboard
      1. Recognize that “writing” keys produce a letter, number, or symbol
      2. Identify home row writing keys
      3. Place correct fingers on home row keys
      4. Type words consisting of the home row keys using correct fingers while touch typing
      5. Place correct fingers on the row above and below home row using proper finger position
      6. Develop touch typing skills for all letter rows using correct fingers while looking minimally at hands
      7. Type correct punctuation for text
      8. Type numbers (above the letter rows) with correct home row fingers
      9. Build accuracy (see table on page 9)
   B. Use “working” keys on a keyboard
      1. Recognize the keys and the jobs they do: Enter, Spacebar, Shift, Caps Lock, Arrows, Tab, Punctuation, Backspace, Delete, Home, End, Page Up, and Page Down
      2. Use thumb on Spacebar to create spaces
Fourth Grade: Keyboarding Skills

4.1 Physical Approaches & Skill Development
Students will demonstrate physical development needed for keyboarding.
Each student will:
   A. Use proper posture and hand and body positions

4.2 Computer Operations
Students will demonstrate an understanding of parts of a computer and word processing tools.
Each student will:
   A. Highlight, cut, copy, and paste text or images
   B. Select and deselect radio and check box buttons or answer options using a mouse, touchpad, touchscreen, or keyboard
   C. Understand the concepts of hardware, software, thumb drive, file, save, delete, edit
   D. Open a blank word processing file
   E. Understand how to save and retrieve a file

4.3 Keyboarding Skills
Students understand how to touch type in order to create text.
Each student will:
   A. Use touch typing to create text
      1. Identify and consistently use the home row keys with proper finger position
      2. Extend touch typing skills to the row above and below the home row keys using the proper fingers
      3. Review and demonstrate the proper keyboarding technique for each letter of the alphabet
      4. Consistently use Shift key to produce capitals
      5. Use both hands for letter, word, and sentence drills without looking at the keyboard
      6. Type name, words, lists, and sentences without looking at the keyboard
      7. Type most text in a one-page document without looking at the keyboard
      8. Use written language skills (e.g., capitalization, punctuation, spelling, etc.) as grade appropriate
      9. Build accuracy (see table on page 9)
   B. Use “working” keys on a keyboard
      1. Recognize the keys and the jobs they do: Enter, Spacebar, Shift, Caps Lock, Arrows, Tab, Punctuation, Backspace, Delete, Home, End, Page Up, Page Down, and Number Lock
      2. Use thumb on Spacebar to create spaces after words and punctuation
      3. Press the Shift key for capitals
      4. Press the Shift key to use symbols at the top of number and symbol keys
      5. Use numeric keypad (if applicable)
Fifth Grade: Keyboarding Skills

5.1 Physical Approaches & Skill Development
Students will demonstrate physical development needed for keyboarding. Each student will:
   A. Use proper posture and hand and body positions

5.2 Computer Operations
Students will demonstrate an understanding of word processing tools. Each student will:
   A. Experiment with formatting tools (bold, italic, underline, type faces, margins, etc.)
   B. Use removable media to save files (e.g., disks, thumb drive, etc.)
   C. Insert tables and other images into file
   D. Set up a file with correct line spacing, indentation, justification
   E. Share files with others (i.e. e-mail attachments, thumb drive, etc.)

5.3 Keyboarding Skills
Students utilize touch typing in order to create text. Each student will:
   A. Use touch typing to create text
      1. Identify and consistently use the home row keys with proper finger position
      2. Extend touch typing skills to the row above and below the home row keys using the proper fingers
      3. Review and demonstrate proper keyboarding technique for each letter of the alphabet
      4. Consistently use Shift key to produce capitals
      5. Use both hands for letter, word, and sentence drills without looking at the keyboard
      6. Type all text in a two-page document without looking at the keyboard
      7. Use written language skills (e.g., capitalization, punctuation, spelling, etc.) as grade appropriate
      8. Build accuracy (see table on page 9)
   B. Use “working” keys on a keyboard
      1. Recognize the keys and the jobs they do: Enter, Spacebar, Shift, Caps Lock, Arrows, Tab, Punctuation, Backspace, Delete, Home, End, Page Up, Page Down, and Number Lock
      2. Use thumb on Spacebar to create spaces after words and punctuation
      3. Press the Shift key for capitals
      4. Press the Shift key to use symbols at the top of number and symbol keys
      5. Use numeric keypad (if applicable)
      6. Use common short cut keys
## Target Speeds and Accuracy

<table>
<thead>
<tr>
<th>GRADE</th>
<th>SPEED (words per minute)</th>
<th>ACCURACY</th>
<th>TASK DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>15</td>
<td>95%</td>
<td>one minute timed writing</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
<td>95%</td>
<td>one minute timed writing</td>
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<tr>
<td>5</td>
<td>25</td>
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References