Elementary Technology Literacy Guide

Plano Independent School District
1998

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Introduction

The goal of the elementary technology literacy program is to provide students with technology skills necessary for becoming productive citizens in an increasingly technological world. According to the U.S. Department of Education's Office of Educational Technology, technology is an integral part of our students' future. Today's classroom requires that students learn to operate computers and their peripherals, and use software applications both as instructional aides and production tools. An effective technology curriculum introduces skills appropriate for the student's physical and conceptual development that spirals from kindergarten through grade five.

Keyboarding is the term used today to refer to touch-typing, special key functions, use of the mouse, and numerical operations. Students learn proper key-reaching techniques to build speed and accuracy. These keyboarding skills provide the student with knowledge of correct finger placement and the choice of an automatic response when typing on a keyboard or using other input devices, enabling the efficient use of computers and related equipment.

Technology competency skills are a set of abilities which enables students to use electronic tools effectively and efficiently. Acquisition of these skills enables students to make informed decisions about technologies and their applications. Technologies may include multimedia software, CD-ROM, laserdisc, digital camera, video camera, Internet software application, scanner, VCR, bar code reader, calculator, and tape recorder. Students select technology appropriate for the task, use it efficiently, evaluate results, and communicate information in different formats.

This curriculum guide includes elementary keyboarding standards and other technology competencies. To ensure ethical use of these standards, this guide also includes the Plano Independent School District Acceptable Use Guidelines for Technology Resources.

Rationale

Recently adopted curriculum standards for Technology Applications, developed by TEA through the Texas Essential Knowledge and Skills, mandate that technology is integrated as a learning tool in all grade levels. Technology integrated across the curriculum and in all grade levels demands that keyboarding instruction and training begin at an early age and continue through high school.

Research indicates that formal keyboarding instruction should begin when student interaction with the computer requires more than simple one-letter responses or mouse clicking responses. Introducing students to formal keyboarding instruction in the elementary grades ensures that students develop proper hand-finger methods instead of acquiring hard-to-break, self-taught "hunt and peck" habits. Efficient keyboarding skills allow students to concentrate on what they are composing, rather than how it is being written. Our goal is to produce students with keyboarding skills that will increase their productivity and contribute to positive technology applications in all academic areas.

Curriculum Considerations/Overview of Software

To implement the technology literacy program for grades K-5, new keyboarding programs have been adopted. The emphasis of teacher instruction is on techniques first, then speed, and finally accuracy. Teachers will be able to monitor each student's progress by using the keyboarding skills checklists that are provided within the Technology Literacy Guide. It is suggested that these lessons would best be incorporated into the curriculum through multitasking.

- Instruction for a **minimum** of 15-20 minutes per week
- *The Magic Applehouse* - Kindergarten-Grade 1 (First Semester)
- *PAWS in Typing Town* - Grades 1 (Second Semester) and Grades 2-3
- *Mavis Beacon Teaches Typing* - Grades 4-5

The Magic Applehouse provides sixteen learning games and activities that help children learn vital computer and business awareness skills while also reinforcing reading, writing, math, and social studies concepts. Creative thinking and logical reasoning skills are also encouraged allowing students to practice their higher order thinking skills.

PAWS in Typing Town has two components consisting of **Lessons** and **Arcade**. **Lessons** includes sixteen lessons that introduce correct hand-finger on all of the keys. The teacher has management options consisting of linear or random modes. The linear mode will only allow the student to complete lessons in a numbered sequence shown on the screen. The random mode enables the student to learn lessons in any order. It is highly recommended that students work in the linear mode until a majority of keys has been mastered. Other options are control of volume and turning on or off the use of the backspace key during the lessons. The teacher can monitor a student's progress by viewing lesson reports from the screen or by printing a report. **Arcade** gives game-like options for practicing in a challenging and entertaining setting.

Mavis Beacon Teaches Typing uses a classroom screen as a navigational tool to access all areas of the program. There are four main components: Laptop, Finger Positioning Chart, Progress Chart, and Fun and Games. **Laptop** contains the lessons for the program. A student has the option to start at a beginning level or to take a pretest that will automatically place the student at the appropriate typing level. The **Finger Positioning Chart** gives instructions of which finger to use to type specific letters and the "Guide Hands" shows the student how to position each finger. **Progress Chart** allows the student to view individual progress through a series of charts. **Fun and Games** is a selection of games designed at three different levels to test typing speed, accuracy, and rhythm. Another feature of the Mavis Beacon program is a dictation section which allows the student to practice keyboarding by using listening skills.

Keyboarding Skills Overview

The intent of a formal approach to teaching keyboarding is not to produce a skilled typist, but rather to help the student become more efficient in using the computer. It is designed to teach proper keyboarding techniques, to familiarize the student with the location of various alphabetical characters, numbers, and some computer function keys, and use of the mouse. Efficient keyboarding is essential for using word processing, database, desktop publishing, telecommunications, and multimedia. It is important that children learn proper manipulation of the keyboard to increase their proficiency and their motivation in daily computer applications. Keyboarding is a crucial component of using computers as an integrated learning tool.

Rationale: Students need instruction and practice in keyboarding to be more proficient users of technology.

The Plano Independent School District recommendations regarding keyboarding instruction for each student are as follows:

> **A: Observing Teacher Modeling of Skills**
> **B: Practicing Skills with Teacher Guidance**
> **C: Using Skills with Minimal Teacher Support**
> **D: Applying Skills Independently**
> **X: Not Covered**

Objectives:	K	1st	2nd	3rd	4th	5th
Understand that the keyboard is a data input device.	A/B	B	C	D	D	D
Identify keys on the right and left side of the keyboard.	A/B	B/C	C/D	C/D	D	D
Recognize letters on the keyboard as capital letters.	A/B	B/C	D	D	D	D
Recognize that letters typed on the keyboard are lower case unless the Shift Key is used.	A/B	B/C	C/D	D	D	D
Identify the location and function of these keys: Enter, Escape, Spacebar, Shift, Arrows, and Backspace.	A/B	B/C	C/D	D	D	D
Identify the location and function of the Tab Key.	A	A	A/B	C/D	D	D

Objectives:	K	1st	2nd	3rd	4th	5th
Identify and properly use the mouse	A/B	B/C	C/D	D	D	D
Use correct posture	A/B	B/C	C/D	C/D	D	D
Use "single-click," "double click," and "click-and-drag" functions of the mouse.	A/B	B/C	C/D	C/D	D	D
Locate, identify, and use letter, number, and punctuation keys.	A/B	A/B	C	C	D	D
Use left hand on the left side of the keyboard.	A	A/B	B	B/C	D	D
Use right hand on the right side of the keyboard.	A	A/B	B	B/C	D	D
Use both hands simultaneously on the keyboard.	A	A/B	A/B	B	B/C	D
Use thumb on the spacebar.	A	A	B	B/C	D	D
Use correct hand-finger, homerow, and pairing of fingers.	A	A	A/B	B	C/D	D
Use correct technique for key striking and keying by touch.	A	A	A	A/B	B/C	C/D
Enter data at a rate of 11-15 words per minute.	A	A	A	A/B	C/D	D

Located online:
http://k-12.pisd.edu/elemcurr/keyboard/keyboard.htm

Technology Competency Skills Overview

Rationale: Students need ongoing instruction and practice using computers and other media tools to be proficient users of technology.

The Plano Independent School District recommendations regarding technology competency instruction for each student are as follows:

> **A: Observing Teacher Modeling of Skills**
> **B: Practicing Skills with Teacher Guidance**
> **C: Using Skills with Minimal Teacher Support**
> **D: Applying Skills Independently**
> **X: Not Covered**

Objectives:	K	1st	2nd	3rd	4th	5th
Show respect for computer hardware.	A/B/C/D	A/B/C/D	C/D	D	D	D
Show respect for computer software.	A/B/C/D	A/B/C/D	C/D	D	D	D
Understand and comply with the District Acceptable Use Guidelines.	A/B/C/D	A/B/C/D	C/D	D	D	D
Identify the following components of a computer system: CPUs, monitor, mouse, mouse pad, sound device, earphones, and keyboard.	A/B	A/B	B/C	C/D	D	D
"Log in" and "log out."	A/B/C/D	D	D	D	D	D
Open a program by "double clicking" on an icon.	A/B/C/D	C/D	D	D	D	D
Use the mouse to control the cursor.	A/B/C/D	C/D	D	D	D	D
Use the arrow keys to control the cursor.	A/B/C/D	C/D	D	D	D	D
Use appropriate items on a menu bar, e.g., "Print" and "Save."	A/B	B/C	C/D	C/D	D	D
Resize pictures.	A	A	A/B	B/C	C/D	D
Change font, color, and size.	A/B	A/B	C/D	C/D	D	D
Use correct spacing between words.	A/B	A/B	B/C	C/D	D	D
Use correct spacing following punctuation.	A/B	A/B	B/C	C/D	D	D
Use spell check.	A	A/B	B/C	C/D	D	D
Open a saved file.	A	A/B/C	C/D	C/D	D	D

Technology Competency Skills

Objectives:	K	1st	2nd	3rd	4th	5th
Name and save a file.	A	A/B/C	C/D	C/D	D	D
Add graphics to a writing project.	A/B	A/B/C	C/D	C/D	D	D
Use the tool icons such as bold, italicize, underline, paragraph indent, and justification.	A	A/B	B/C	B/C	C/D	D
Understand and use the cut, copy, and paste information.	A	A/B	A/B	B/C	C	D
Add text boxes.	A	A	A	A/B	B/C	C/D
Use the Internet for locating and retrieving information.	A	A	A/B	B/C	B/C	C/D
Open, close, and restore windows.	A	A	A/B	C/D	D	D
Access information on a CD-ROM drive.	A/B	A/B	A/B/C	C/D	D	D
Access and use an existing spreadsheet and database.	X	A	A	A/B	B/C	C/D
Use a VCR.	A	B/C	C	C/D	C/D	D
Use a scanner.	X	A	A	B	C	C
Use a calculator.	A	A/B/C	C/D	C/D	D	D
Use a bar code reader.	A	B/C	C/D	C/D	D	D
Use a laserdisc player.	A	A/B	B/C	B/C	C/D	C/D
Use a tape recorder.	A/B/C	C/D	D	D	D	D
Use a digital camera.	A	A	A/B	C/D	D	D
Use a video camera.	A	A	A/B	C/D	D	D
Use multimedia software	A/B/C	A/B/C/D	C/D	C/D	D	D

Located online:
http://k-12.pisd.edu/elemcurr/skills/technlgy.htm

Kindergarten

Keyboarding Skills for Kindergarten

> **A: Observing Teacher Modeling of Skills**
> **B: Practicing Skills with Teacher Guidance**
> **C: Using Skills with Minimal Teacher Support**
> **D: Applying Skills Independently**
> **X: Not Covered**

Objectives:

• Identify the location and function of the Tab Key.	A
• Use left hand on the left side of the keyboard.	A
• Use right hand on the right side of the keyboard.	A
• Use both hands simultaneously on the keyboard.	A
• Use thumb on the spacebar.	A
• Use correct hand-finger, home row, and pairing of fingers.	A
• Use correct technique for key striking and keying by touch.	A
• Enter data at a rate of 11-15 words per minute.	A
• Understand that the keyboard is a data input device.	A/B
• Identify keys on the right and left side of the keyboard.	A/B
• Recognize letters on the keyboard as capital letters.	A/B
• Recognize that letters typed on the keyboard are lower case unless the Shift Key is used.	A/B
• Identify the location and function of these keys: Enter, Escape, Spacebar, Shift, Arrows, and Backspace.	A/B
• Identify and properly use the mouse.	A/B
• Use correct posture.	A/B
• Use "single-click," "double click," and "click-and-drag" functions of the mouse.	A/B
• Locate, identify, and use letter, number, and punctuation keys.	A/B

Technology Competency Skills for Kindergarten

> **A: Observing Teacher Modeling of Skills**
> **B: Practicing Skills with Teacher Guidance**
> **C: Using Skills with Minimal Teacher Support**
> **D: Applying Skills Independently**
> **X: Not Covered**

Objectives:

• Resize pictures.	A
• Use spell check.	A
• Open a saved file.	A
• Name and save a file.	A
• Use the following tool icons: bold, italicize, underline, paragraph indent, and justification.	A
• Understand and use the cut, copy, and paste information.	A
• Add text boxes.	A
• Use the Internet for locating and retrieving information.	A
• Open, close, and restore windows.	A
• Use a VCR.	A
• Use a calculator.	A
• Use a bar code reader.	A
• Use a laserdisc player.	A
• Use a digital camera.	A
• Use a video camera.	A
• Identify the following components of a computer system: CPUs, monitor, mouse, mouse pad, sound device, earphones, and keyboard.	A/B
• Use appropriate items on a menu bar, e.g., "Print" and "Save."	A/B
• Change font, color, and size.	A/B
• Use correct spacing between words.	A/B
• Use correct spacing following punctuation.	A/B
• Add graphics to a composition.	A/B
• Access information on a CD-ROM drive.	A/B
• Use a tape recorder.	A/B/C
• Use multimedia software	A/B/C
• Show respect for computer hardware.	A/B/C/D
• Show respect for computer software.	A/B/C/D
• Understand and comply with the District Acceptable Use Guidelines.	A/B/C/D
• "Log in" and "log out."	A/B/C/D
• Open a program by "double clicking" on an icon.	A/B/C/D
• Use the mouse to control the cursor.	A/B/C/D
• Use the arrow keys to control the cursor.	A/B/C/D
• Access and use an existing spreadsheet and data base.	X
• Use a scanner.	X

Kindergarten Keyboarding Skills Checklist

Students	Identify location and function of tab key (A)	Use left hand on keyboard (A)	Use right hand on keyboard (A)	Use both hands simultaneously on keyboard (A)	Use thumb on spacebar (A)	Use correct homerow finger pairings (A)	Use correct striking technique (A)	Enter data at rate of 11-15 wpm (A)	Understand that a keyboard is a data input device (A/B)	Identify keys on the right & left of the keyboard (A/B)	Recognize letters on a keyboard as capitals (A/B)	Recognize that typed letters are lower case (A/B)	Identify location/function of enter key (A/B)	Identify location/function of escape key (A/B)	Identify location/function of spacebar (A/B)	Identify location/function of shift key (A/B)	Identify location/function of arrow keys (A/B)	Identify location/function of backspace key (A/B)	Identify and properly use mouse (A/B)	Use correct posture (A/B)	Understand clicking function of mouse (A/B)	Locate, identify, and use letter keys (A/B)	Locate, identify, and use number keys (A/B)	Locate, identify, and use punctuation keys (A/B)

A (Observe teacher modeling)   B (Teacher Guidance)   C (Minimal Teacher Support)   D (Independent)

Kindergarten Technology Competency Skills Checklist

Students	Resize pictures (A)	Use spell check (A)	Open saved file (A)	Name and save file (A)	Use tool icons (A)	Cut, copy, and paste (A)	Add text boxes (A)	Use the Internet for locating and retrieving information. (A)	Open, close, and restore windows (A)	Use VCR (A)	Use calculator (A)	Use bar code reader (A)	Use laserdisc player (A)	Use digital camera (A)	Use video camera (A)	Identify computer components (A/B)	Use menu bar (A/B)	Change font, color, and size (A/B)	Use correct spacing between words (A/B)	Use correct spacing after punctuation (A/B)	Add graphics (A/B)	Use CD-ROM drive (A/B)	Use tape recorder (A/B/C)	Use multimedia software (A/B/C)	Respect hardware (A/B/C/D)	Respect software (A/B/C/D)	Comply with district guidelines (A/B/C/D)	"Log in" and "log out" (A/B/C/D)	Open by double clicking (A/B/C/D)	Use mouse (A/B/C/D)	Use arrow keys (A/B/C/D)

A (Observe teacher modeling)   B (Teacher Guidance)   C (Minimal Teacher Support)   D (Independent)

Instructional Management Suggestions
Kindergarten

Each student will increase individual skills by using the grade-level designated keyboarding software for a minimum of 15-20 minutes weekly.

The teacher will
- Use the large screen monitor when modeling or demonstrating technology/keyboarding skills.
- Integrate technology competencies and keyboarding throughout the day.

Using *Magic Applehouse* in the Classroom

The main educational objective of **Magic Applehouse** is to introduce students to basic computer skills and allow them to become comfortable with these skills. This is a CD-ROM based program.

In **Key Coach**, the **Learn With Abigail** tutorial covers learning the parts of a computer including the monitor, keyboard, CPU, mouse, printer, modem, and external CD-ROM drive. Students are also taught the function of the mouse, arrow keys, space bar, windows, cursor, shift, return, and tab keys.

The **Keyboard Fun** section of **Key Coach** allows students an opportunity to reinforce skills learned in tutorial.
- *Making a Folder* provides practice in using the mouse to click and drag and to double-click.
- *Falling Apples* reinforces the use of the tab key.
- *Swift Shift* and *Buzz's Beehive* reinforce using the tab key, space bar, arrow keys, return key, and following the cursor.

The **Apple Orchard** section provides students opportunities to enter and gather information into a database and spreadsheet.

Key Points for the Teacher

- Demonstrate or model each lesson in large group.
- Allow students to progress through the assigned activity at their own pace.
- Monitor and provide feedback and encouragement.
- Assess using ongoing observation.

Suggestions for Multitasking

In the elementary classroom, teachers use multitasking opportunities for students to practice and demonstrate skills and processes. One important learning activity is to observe, practice, use, and apply keyboarding skills. At this time students will be working independently, with partners, or in groups. Students' needs and available technology will determine group size and number of groups. The teacher may be engaged in direct teaching or observing/facilitating student learning. Some suggestions for facilitating multitasking within the classroom are listed below:

writer's workshop	journal writing
independent reading	listening station
laserdisc activities	guided reading
center/station time	language arts
activities to develop math concepts	activities from the organizing ideas
literacy stations	

Specific examples for managing multitasking throughout the day:

1. ***With teacher engaged:***
   - Three groups of students
        Group A – Computer Literacy/Keyboarding
        Group B - Guided reading with the teacher
        Group C - Writing activity

   - Four groups of students
        Group A – Computer Literacy/Keyboarding
        Group B - Math manipulatives for concept development
        Group C - Guided reading with the teacher
        Group D - Listening station

   - Five groups of students
        Group A - Computer Literacy/Keyboarding
        Group B - Guided reading with the teacher
        Group C - Activity from Integrated Curriculum
        Group D - Math concept development
        Group E - Journal writing

2. ***With teacher observing/facilitating:***

- Three groups of students
    - Group A - Computer Literacy/Keyboarding
    - Group B - Journal Writing
    - Group C - Laserdisc activity

- Four groups of students
    - Group A - Computer Literacy/Keyboarding
    - Group B - Independent reading
    - Group C - Literacy station
    - Group D - Journal writing

- Five groups of students
    - Group A - Computer Literacy/Keyboarding
    - Group B - Activity from Integrated Curriculum
    - Group C - Partner reading
    - Group D - Math manipulatives for concept development
    - Group E - Art activity

First Grade

Keyboarding Skills for First Grade

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A: Observing Teacher Modeling of Skills
B: Practicing Skills with Teacher Guidance
C: Using Skills with Minimal Teacher Support
D: Applying Skills Independently
X: Not Covered

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Objectives:

• Identify the location and function of the Tab Key.	A
• Use thumb on the spacebar.	A
• Use correct hand-finger, home row, and pairing of fingers.	A
• Use correct technique for key striking and keying by touch.	A
• Enter data at a rate of 11-15 words per minute.	A
• Locate, identify, and use letter, number, and punctuation keys.	A/B
• Use left hand on the left side of the keyboard.	A/B
• Use right hand on the right side of the keyboard.	A/B
• Use both hands simultaneously on the keyboard.	A/B
• Understand that the keyboard is a data input device.	B
• Identify keys on the right and left side of the keyboard.	B/C
• Recognize letters on the keyboard as capital letters.	B/C
• Recognize that letters typed on the keyboard are lower case unless the Shift Key is used.	B/C
• Identify the location and function of these keys: Enter, Escape, Spacebar, Shift, Arrows, and Backspace.	B/C
• Identify and properly use the mouse.	B/C
• Use correct posture.	B/C
• Use "single-click," "double click," and "click-and-drag" functions of the mouse.	B/C

Technology Competency Skills for First Grade

> **A: Observing Teacher Modeling of Skills**
> **B: Practicing Skills with Teacher Guidance**
> **C: Using Skills with Minimal Teacher Support**
> **D: Applying Skills Independently**
> **X: Not Covered**

Objectives:

• Resize pictures.	A
• Add text boxes.	A
• Use the Internet for locating and retrieving information.	A
• Open, close, and restore windows.	A
• Access and use an existing spreadsheet and database.	A/B
• Use a scanner.	A
• Use a digital camera.	A
• Use a video camera.	A
• Identify the following components of a computer system: CPUs, monitor, mouse, mouse pad, sound device, earphones, and keyboard.	A/B
• Change font, color, and size.	A/B
• Use correct spacing between words.	A/B
• Use correct spacing following punctuation.	A/B
• Use spell check.	A/B
• Use the tool icons such as: bold, italicize, underline, paragraph indent, and justification.	A/B
• Understand and use the cut, copy, and paste information.	A/B
• Access information on a CD-ROM drive.	A/B
• Use a laserdisc player.	A/B
• Name and save a file.	A/B/C
• Add graphics to a composition.	A/B/C
• Use a calculator.	A/B/C
• Open a saved file.	A/B/C
• Show respect for computer hardware.	A/B/C/D
• Show respect for computer software.	A/B/C/D
• Understand and comply with the District Acceptable Use Guidelines.	A/B/C/D
• Use multimedia software	A/B/C/D
• Use appropriate items on a menu bar, e.g., "Print" and "Save."	B/C
• Use a VCR.	B/C
• Use a bar code reader.	B/C
• Open a program by "double clicking" on an icon.	C/D
• Use the mouse to control the cursor.	C/D
• Use the arrow keys to control the cursor.	C/D
• Use a tape recorder.	C/D
• "Log in" and "log out."	D

First Grade Keyboarding Skills Checklist

Students	Identify location/ function of the tab key (A)	Identify location/ function of spacebar (A)	Use correct homerow finger pairings (A)	Use correct striking techniques (A)	Enter data at rate of 11-15 wpm (A)	Locate, identify, and use letter keys (A/B)	Locate, identify, and use number keys (A/B)	Locate, identify, and use punctuation keys (A/B)	Use left hand on keyboard (A/B)	Use right hand on keyboard (A/B)	Use both hands simultaneously on keyboard (A/B)	Understand function of keyboarding (B)	Identify keys (B/C)	Recognize letters on keyboard as capitals (B/C)	Recognize that typed letters are lower case (B/C)	Identify location/function of enter key (B/C)	Identify location/function of escape key (B/C)	Identify location/function of spacebar (B/C)	Identify location/function of shift key (B/C)	Identify location/function of arrow keys (B/C)	Identify location/function of backspace key (B/C)	Identify and properly use mouse (B/C)	Use correct posture (B/C)	Use clicking function of mouse (B/C)

A (Observe teacher modeling)   B (Teacher Guidance)   C (Minimal Teacher Support)   D (Independent)

First Grade Technology Competency Skills Checklist

Students	Resize pictures (A)	Add text boxes (A)	Use the Internet for locating and retrieving information. (A)	Open, close, and restore windows (A)	Use spreadsheet and database (A/B)	Use scanner (A)	Use digital camera (A)	Use video camera (A)	Identify computer components (A/B)	Change font, color, and size (A/B)	Use correct spacing between words (A/B)	Use correct spacing after punctuation (A/B)	Use spell check (A/B)	Use tool icons (A/B)	Use cut, copy, and paste functions (A/B)	Use CD-ROM drive (A/B)	Use laserdisc player (A/B)	Name and save file (A/B/C)	Add graphics (A/B/C)	Use calculator (A/B/C)	Open saved file (A/B/C)	Respect hardware (A/B/C/D)	Respect software (A/B/C/D)	Comply with district guidelines (A/B/C/D)	Use multimedia software (A/B/C/D)	Use menu bar (B/C)	Use VCR (B/C)	Use bar code reader (B/C)	Open by double clicking (C/D)	Use mouse (C/D)	Use arrow keys (C/D)	Use tape recorder (C/D)	"Log in" and "log out" (D)

A (Observe teacher modeling)　　B (Teacher Guidance)　　　C (Minimal Teacher Support)　　　D (Independent)

Instructional Management Suggestions
First Grade

Each student will increase individual skills by using the grade-level designated keyboarding software for a minimum of 15-20 minutes weekly.

The teacher will
- Use the large screen monitor when modeling or demonstrating technology/keyboarding skills.
- Integrate technology competencies and keyboarding throughout the day.

Using *Magic Applehouse* in the Classroom

The main educational objective of ***Magic Applehouse*** is to introduce students to basic computer skills and allow them to become comfortable with these skills. This is a CD-ROM based program. This program is used in kindergarten and can be used during the first semester of first grade.

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The **Apple Orchard** section provides students opportunities to enter and gather information into a database and spreadsheet.

Key Points

- Demonstrate or model each lesson in large group.
- Allow students to progress through the assigned activity at their own pace.
- Monitor and provide feedback and encouragement.
- Assess using ongoing observation.

Using Paws in the Classroom

Paws in Typing Town, a network software program, includes sixteen lessons that introduce all of the keys using the correct fingering. Some of these beginning lessons are developmentally appropriate for students during the **second semester** of first grade. This software program will continue to be used in the second and third grade instructional programs.

Paws in Typing Town emphasizes technique first, then speed, and finally accuracy while teaching:

- proper techniques of sitting correctly
- correct hand and finger position
- finding, placing, and maintaining correct home key position
- correct finger reach
- striking with the correct finger
- correct keystroking technique

Lessons
- 16 lessons with four modules each (Technique, Lesson, Arcade, and Journal)
- lessons follow sequence of review, new keys, practice, speed building
- taught in linear progression
- printable progress reports

Management Options
- assessment tools
- options for customizing lesson plans
- sound and delete key function
- game speed goals
- Lesson Completion Report

Suggestions for Multitasking

In the elementary classroom, teachers use multitasking opportunities for students to practice and demonstrate skills and processes. One important learning activity is to observe, practice, use, and apply keyboarding skills. At this time students will be working independently, with partners, or in groups. Students' needs and available technology will determine group size and number of groups. The teacher may be engaged in direct teaching or observing/facilitating student learning. Some suggestions for facilitating multitasking within the classroom are listed below:

writer's workshop	journal writing
independent reading	listening station
laserdisc activities	guided reading
center/station time	language arts
activities to develop math concepts	activities from the organizing ideas
literacy stations	spelling reinforcement
handwriting opportunities	

Specific examples for managing multitasking throughout the day:

1. ***With teacher engaged:***
   - Three groups of students
       Group A - Keyboarding
       Group B - Guided reading with the teacher
       Group C - Writing activity

   - Four groups of students
       Group A - Keyboarding
       Group B - Math manipulatives for concept development
       Group C - Writing conferences with the teacher
       Group D - Listening station

   - Five groups of students
       Group A - Keyboarding
       Group B - Running Record with the teacher
       Group C - Activity from Integrated Curriculum
       Group D - Math problem solving activity
       Group E - Journal writing

2. ***With teacher observing/facilitating:***

   - Three groups of students
       Group A - Keyboarding
       Group B - Handwriting
       Group C - Laserdisc activity

- Four groups of students
  - Group A - Keyboarding
  - Group B - Independent reading
  - Group C - Research at the computer
  - Group D - Journal writing

- Five groups of students
  - Group A - Keyboarding
  - Group B - Activity from Integrated Curriculum
  - Group C - Partner reading
  - Group D - Handwriting
  - Group E - Art activity

Second Grade

Keyboarding Skills for Second Grade

> **A: Observing Teacher Modeling of Skills**
> **B: Practicing Skills with Teacher Guidance**
> **C: Using Skills with Minimal Teacher Support**
> **D: Applying Skills Independently**
> **X: Not Covered**

Objectives:

• Use correct technique for key striking and keying by touch.	A
• Enter data at a rate of 11-15 words per minute.	A
• Identify the location and function of the Tab Key.	A/B
• Use both hands simultaneously on the keyboard.	A/B
• Use correct hand-finger, home row, and pairing of fingers.	A/B
• Use left hand on the left side of the keyboard.	B
• Use right hand on the right side of the keyboard.	B
• Use thumb on the spacebar.	B
• Understand that the keyboard is a data input device.	C
• Locate, identify, and use letter, number, and punctuation keys.	C
• Identify keys on the right and left side of the keyboard.	C/D
• Recognize that letters typed on the keyboard are lower case unless the Shift Key is used.	C/D
• Identify the location and function of these keys: Enter, Escape, Spacebar, Shift, Arrows, and Backspace.	C/D
• Identify and properly use the mouse.	C/D
• Use correct posture.	C/D
• Use "single-click," "double click," and "click-and-drag" functions of the mouse.	C/D
• Recognize letters on the keyboard as capital letters.	D

Technology Competency Skills for Second Grade

> **A: Observing Teacher Modeling of Skills**
> **B: Practicing Skills with Teacher Guidance**
> **C: Using Skills with Minimal Teacher Support**
> **D: Applying Skills Independently**
> **X: Not Covered**

Objectives:

• Add text boxes.	A
• Access and use an existing spreadsheet and database.	A/B
• Use a scanner.	A
• Resize pictures.	A/B
• Understand and use the cut, copy, and paste information.	A/B
• Use the Internet for locating and retrieving information.	A/B
• Open, close, and restore windows.	A/B
• Use a digital camera to take pictures.	A/B
• Use a video camera.	A/B
• Access information on a CD-ROM drive.	A/B/C
• Identify the following components of a computer system: CPUs, monitor, mouse, mouse pad, sound device, earphones, and keyboard.	B/C
• Use correct spacing between words.	B/C
• Use correct spacing following punctuation.	B/C
• Use spell check.	B/C
• Use the tool icons such as bold, italicize, underline, paragraph indent, and justification.	B/C
• Use a laserdisc player.	B/C
• Use a VCR.	C
• Show respect for computer hardware.	C/D
• Show respect for computer software.	C/D
• Understand and comply with the District Acceptable Use Guidelines.	C/D
• Use appropriate items on a menu bar, e.g., "Print" and "Save."	C/D
• Change font, color, and size.	C/D
• Name and save a file.	C/D
• Add graphics to a composition.	C/D
• Use a calculator.	C/D
• Use a bar code reader.	C/D
• Use multimedia software	C/D
• Open a saved file.	C/D
• "Log in" and "log out."	D
• Open a program by "double clicking" on an icon.	D
• Use the mouse to control the cursor.	D
• Use the arrow keys to control the cursor.	D
• Use a tape recorder.	D

Second Grade Keyboarding Skills Checklist

Students	Use correct striking techniques (A)	Enter data at a rate of 11-15 wpm (A)	Identify location & function of Tab Key (A/B)	Use both hands simultaneously (A/B)	Use correct homerow finger pairings (A/B)	Use left hand on keyboard (B)	Use right hand on keyboard (B)	Use thumb on spacebar (B)	Understand what a keyboard is (C)	Locate, identify & use letter keys (C)	Locate, identify & use number keys (C)	Locate, identify & use punctuation keys (C)	Identify keys on right & left side (C/D)	Identify location & function of enter key (C/D)	Identify location & function of escape key(C/D)	Identify location & function of spacebar (C/D)	Identify location & function of shift key (C/D)	Identify location & function of arrow keys(C/D)	Identify location & function of backspace key (C/D)	Identify & properly use mouse (C/D)	Use correct posture (C/D)	Use clicking functions of mouse (C/D)	Recognize capitals (D)

A (Observe teacher modeling)   B (Teacher Guidance)   C (Minimal Teacher Support)   D (Independent)

Second Grade Technology Competency Skills Checklist

Students	Add text boxes (A)	Use spreadsheet and database (A/B)	Use scanner (A)	Resize pictures (A/B)	Cut, copy, and paste (A/B)	Use the Internet for locating and retrieving information. (A/B)	Open, close, and restore windows (A/B)	Use digital camera (A/B)	Use video camera (A/B)	Use CD-ROM drive (A/B/C)	Identify computer components (B/C)	Use correct spacing between words (B/C)	Use correct spacing after punctuation (B/C)	Use spell check (B/C)	Use tool icons (B/C)	Use laserdisc player (B/C)	Use VCR (C)	Respect hardware (C/D)	Respect software (C/D)	Comply with district guidelines (C/D)	Use menu bar (C/D)	Change font, color, and size (C/D)	Name and save file (C/D)	Add graphics (C/D)	Use calculator (C/D)	Use bar code reader (C/D)	Use multimedia software (C/D)	Open saved file (C/D)	"Log in" and "log out" (D)	Open by double clicking (D)	Use mouse to control cursor (D)	Use arrow keys (D)	Use tape recorder (D)

A (Observe teacher modeling)   B (Teacher Guidance)   C (Minimal Teacher Support)   D (Independent)

Instructional Management Suggestions for
Second Grade

Each student will increase individual skills by using the grade-level designated keyboarding software for a minimum of 15-20 minutes weekly.

The teacher will
- Use the large screen monitor when modeling or demonstrating technology/keyboarding skills.
- Integrate technology competencies and keyboarding throughout the day.

Using Paws in the Classroom

Paws in Typing Town emphasizes technique first, then speed, and finally accuracy while teaching:

- proper techniques of sitting correctly
- correct hand and finger position
- finding, placing, and maintaining correct home key position
- correct finger reach
- striking with the correct finger
- correct keystroking technique

Lessons
- 16 lessons with four modules each (Technique, Lesson, Arcade, and Journal)
- lessons follow sequence of review, new keys, practice, speed building
- taught in linear progression
- printable progress reports

Management Options
- assessment tools
- options for customizing lesson plans
- sound and delete key function
- game speed goals
- Lesson Completion Report

Do
- Demonstrate or model each new lesson in large group.
- Allow students to progress at their own pace between lessons.
- Monitor, provide feedback, and encourage students.
- Expect correct technique, reasonable speed, and skill.

Don't
- Expect or encourage accuracy. (That comes later.)
- Expect long periods of concentration.
- Encourage use of delete key.
- Be discouraged because progress is slow.

Evaluation/Grading
- Letter grades should not be assigned to students.
- Evaluation should include regular observation and feedback.
- Evaluation is based on correct technique, not speed or accuracy.

Suggestions for Multitasking

Through multitasking, students observe, practice, use, and apply keyboarding skills. Some suggestions for facilitating multitasking within the classroom are listed below:

handwriting	journal writing
writer's workshop	listening station
silent reading time	math
laserdisc activities	morning warm-up
center/station time	guided reading time
integrated time	language arts

The number of groups and group size depends on the needs of your students and available technology. For example, you may want to have larger groups with three different rotations or smaller groups with four or more rotations. The teacher may be engaged in direct teaching (as in guided reading) or observing/facilitating (as in monitoring student work).

Specific examples for managing multitasking throughout the day:

1. ***With teacher engaged:***
    - Three groups of students
        Group A - Keyboarding
        Group B - Guided reading with the teacher
        Group C - Writing activity

    - Four groups of students
        Group A - Keyboarding
        Group B - Math manipulatives for concept development
        Group C - Guided reading with the teacher
        Group D - Listening station

    - Five groups of students
        Group A - Keyboarding
        Group B - Guided reading with the teacher
        Group C - Activity from Integrated Curriculum
        Group D - Math
        Group E - Journal writing

2. ***With teacher observing/facilitating:***

    - Three groups of students
        Group A - Keyboarding
        Group B - Handwriting
        Group C - Laserdisc activity

    - Four groups of students
        Group A - Keyboarding
        Group B - Silent independent reading
        Group C - Math
        Group D - Journal writing

    - Five groups of students
        Group A - Keyboarding
        Group B - Activity from Integrated Curriculum
        Group C - Partner reading
        Group D - Handwriting
        Group E - Art activity

Third Grade

Keyboarding Skills for Third Grade

> **A: Observing Teacher Modeling of Skills**
> **B: Practicing Skills with Teacher Guidance**
> **C: Using Skills with Minimal Teacher Support**
> **D: Applying Skills Independently**
> **X: Not Covered**

Objectives:

• Use correct technique for key striking and keying by touch.	A/B
• Enter data at a rate of 11-15 words per minute.	A/B
• Use both hands simultaneously on the keyboard.	B
• Use correct hand-finger, home row, and pairing of fingers.	B
• Use left hand on the left side of the keyboard.	B/C
• Use right hand on the right side of the keyboard.	B/C
• Use thumb on the spacebar.	B/C
• Locate, identify, and use letter, number, and punctuation keys.	C
• Identify keys on the right and left side of the keyboard.	C/D
• Identify the location and function of the Tab Key.	C/D
• Use correct posture.	C/D
• Use "single-click," "double click," and "click-and-drag" functions of the mouse.	C/D
• Understand that the keyboard is a data input device.	D
• Recognize letters on the keyboard as capital letters.	D
• Recognize that letters typed on the keyboard are lower case unless the Shift Key is used.	D
• Identify the location and function of these keys: Enter, Escape, Spacebar, Shift, Arrows, and Backspace.	D
• Identify and properly use the mouse.	D

Technology Competency Skills for Third Grade

> **A: Observing Teacher Modeling of Skills**
> **B: Practicing Skills with Teacher Guidance**
> **C: Using Skills with Minimal Teacher Support**
> **D: Applying Skills Independently**
> **X: Not Covered**

Objectives:

• Add text boxes.	A/B
• Access and use an existing spreadsheet and database.	A/B
• Use a scanner.	B
• Resize pictures.	B/C
• Use the tool icons such as bold, italicize, underline, paragraph indent, and justification.	B/C
• Understand and use the cut, copy, and paste information.	B/C
• Use the Internet for locating and retrieving information.	B/C
• Use a laserdisc player.	B/C
• Identify the following components of a computer system: CPUs, monitor, mouse, mouse pad, sound device, earphones, and keyboard.	C/D
• Use appropriate items on a menu bar e.g., "Print" and "Save."	C/D
• Change font, color, and size.	C/D
• Use correct spacing between words.	C/D
• Use correct spacing following punctuation.	C/D
• Use spell check.	C/D
• Name and save a file.	C/D
• Add graphics to a composition.	C/D
• Open, close, and restore windows.	C/D
• Access information on a CD-ROM drive.	C/D
• Use a VCR.	C/D
• Use a calculator.	C/D
• Use a bar code reader.	C/D
• Use a digital camera to take pictures.	C/D
• Use a video camera.	C/D
• Use multimedia software	C/D
• Open a saved file.	C/D
• Show respect for computer hardware.	D
• Show respect for computer software.	D
• Understand and comply with the District Acceptable Use Guidelines.	D
• "Log in" and "log out."	D
• Open a program by "double clicking" on an icon.	D
• Use the mouse to control the cursor.	D
• Use the arrow keys to control the cursor.	D
• Use a tape recorder.	D

Third Grade Keyboarding Skills Checklist

Students	Use correct striking techniques (A/B)	Enter data at the rate of 11-15 wpm (A/B)	Use both hands simultaneously on keyboard (B)	Use correct homerow finger pairings (B)	Use left hand on keyboard (B/C)	Use right hand on keyboard (B/C)	Use thumb on spacebar (B/C)	Use letter keys (C)	Use number keys (C)	Use punctuation keys (C)	Identify keys on right and left sides (C/D)	Identify location/function of tab key (C/D)	Use correct posture (C/D)	Understand clicking function of mouse(C/D)	Understand function of keyboard (D)	Recognize letters on keyboard as capitals (D)	Recognize that typed letters are lower case (D)	Identify location/function of enter key (D)	Identify location/function of escape key (D)	Identify location/function of spacebar (D)	Identify location/function of shift key (D)	Identify location/function of arrow keys (D)	Identify location/function of backspace key(D)	Identify and properly use mouse (D)

A (Observe teacher modeling)   B (Teacher Guidance)   C (Minimal Teacher Support)   D (Independent)

Third Grade Technology Competency Skills Checklist

Students	Add text boxes (A/B)	Use spreadsheet and database (A/B)	Use scanner (B)	Resize pictures (B/C)	Use tool icons (B/C)	Cut, copy, and paste (B/C)	Use the Internet for locating and retrieving information. (B/C)	Use laserdisc player (B/C)	Identify computer components (C/D)	Use menu bar (C/D)	Change font, color, and size (C/D)	Use correct spacing between words (C/D)	Use correct spacing after punctuation (C/D)	Use spell check (C/D)	Name and save file (C/D)	Add graphics (C/D)	Open, close, and restore windows (C/D)	Use CD-ROM drive (C/D)	Use VCR (C/D)	Use calculator (C/D)	Use bar code reader (C/D)	Use digital camera (C/D)	Use video camera (C/D)	Use multimedia software (C/D)	Open saved file (C/D)	Respect hardware (D)	Respect software (D)	Comply with district guidelines (D)	"Log in" and "log out" (D)	Open by double clicking (D)	Use mouse (D)	Use arrow keys (D)	Use tape recorder (D)

A (Observe teacher modeling)   B (Teacher Guidance)   C (Minimal Teacher Support)   D (Independent)

Instructional Management Suggestions
for Third Grade

Each student will increase individual skills by using the grade-level designated keyboarding software for a minimum of 15-20 minutes weekly.

The teacher will
- Use the large screen monitor when modeling or demonstrating technology/keyboarding skills.
- Integrate technology competencies and keyboarding throughout the day.

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Paws in Typing Town emphasizes technique first, then speed, and finally accuracy while teaching the following:

- proper techniques of sitting correctly
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Lessons
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- lessons following the sequence of review, new keys, practice, speed building
- taught in linear progression
- printable progress reports

Management Options
- assessment tools
- options for customizing lesson plans
- sound and delete key function
- game speed goals
- Lesson Completion Report

Do
- Demonstrate or model each new lesson in large group.
- Allow students to progress at their own pace between lessons.
- Monitor, provide feedback and encourage students.
- Expect correct technique, reasonable speed, and skill.

Don't
- Expect or encourage accuracy. (That comes later.)
- Expect long periods of concentration.
- Encourage use of delete key.
- Be discouraged because progress is slow.

Evaluation/Grading
- No letter grades assigned to students.
- Evaluation includes regular observation and feedback.
- Evaluation based on correct technique, not speed or accuracy.

Suggestions for Multitasking

Through multitasking, students observe, practice, use, and apply keyboarding skills. Some suggestions for facilitating multitasking within the classroom are listed below:

handwriting	journal writing
writer's workshop	listening station
silent reading time	math
laserdisc activities	morning warm-up
center/station time	guided reading time
integrated time	language arts

The number of groups and group size depends on the needs of your students and available technology. For example, you may want to have larger groups with three different rotations or smaller groups with four or more rotations. The teacher may be engaged in direct teaching (as in guided reading) or observing/facilitating (as in monitoring student work).

Specific examples for managing multitasking throughout the day:

1. ***With teacher engaged:***
   - Three groups of students
     - Group A - Keyboarding
     - Group B - Guided reading with the teacher
     - Group C - Writing activity

   - Four groups of students
     - Group A - Keyboarding
     - Group B - Math manipulatives for concept development
     - Group C - Guided reading with the teacher
     - Group D - Listening station

   - Five groups of students
     - Group A - Keyboarding
     - Group B - Guided reading with the teacher
     - Group C - Activity from Integrated Curriculum
     - Group D - Math
     - Group E - Journal writing

2. ***With teacher observing/facilitating:***

   - Three groups of students
     - Group A - Keyboarding
     - Group B - Handwriting
     - Group C - Laserdisc activity

   - Four groups of students
     - Group A - Keyboarding
     - Group B - Silent independent reading
     - Group C - Math
     - Group D - Journal writing

   - Five groups of students
     - Group A - Keyboarding
     - Group B - Activity from Integrated Curriculum
     - Group C - Partner reading
     - Group D - Handwriting
     - Group E - Art activity

Fourth Grade

Keyboarding Skills for Fourth Grade

> **A: Observing Teacher Modeling of Skills**
> **B: Practicing Skills with Teacher Guidance**
> **C: Using Skills with Minimal Teacher Support**
> **D: Applying Skills Independently**
> **X: Not Covered**

Objectives:

• Use both hands simultaneously on the keyboard.	B/C
• Use correct technique for key striking and keying by touch.	B/C
• Use correct hand-finger, home row, and pairing of fingers.	C/D
• Enter data at a rate of 11-15 words per minute.	C/D
• Understand that the keyboard is a data input device.	D
• Identify keys on the right and left side of the keyboard.	D
• Recognize letters on the keyboard as capital letters.	D
• Recognize that letters typed on the keyboard are lower case unless the Shift Key is used.	D
• Identify the location and function of these keys: Enter, Escape, Spacebar, Shift, Arrows, and Backspace.	D
• Identify the location and function of the Tab Key.	D
• Identify and properly use the mouse.	D
• Use correct posture.	D
• Use "single-click," "double click," and "click-and-drag" functions of the mouse.	D
• Locate, identify, and use letter, number, and punctuation keys.	D
• Use left hand on the left side of the keyboard.	D
• Use right hand on the right side of the keyboard.	D
• Use thumb on the spacebar.	D

Technology Competency Skills for Fourth Grade

> **A: Observing Teacher Modeling of Skills**
> **B: Practicing Skills with Teacher Guidance**
> **C: Using Skills with Minimal Teacher Support**
> **D: Applying Skills Independently**
> **X: Not Covered**

Objectives:

• Add text boxes.	B/C
• Use the Internet for locating and retrieving information.	B/C
• Access and use an existing spreadsheet and database.	B/C
• Understand and use the cut, copy, and paste information.	C
• Use a scanner.	C
• Resize pictures.	C/D
• Use the tool icons such as bold, italicize, underline, paragraph indent, and justification.	C/D
• Use a VCR.	C/D
• Use a laserdisc player.	C/D
• Show respect for computer hardware.	D
• Show respect for computer software.	D
• Understand and comply with the District Acceptable Use Guidelines.	D
• Identify the following components of a computer system: CPUs, monitor, mouse, mouse pad, sound device, earphones, and keyboard.	D
• "Log in" and "log out."	D
• Open a program by "double clicking" on an icon.	D
• Use the mouse to control the cursor.	D
• Use the arrow keys to control the cursor.	D
• Use appropriate items on a menu bar, e.g., "Print" and "Save."	D
• Change font, color, and size.	D
• Use correct spacing between words.	D
• Use correct spacing following punctuation.	D
• Use spell check.	D
• Name and save a file.	D
• Add graphics to a composition.	D
• Open, close, and restore windows.	D
• Access information on a CD-ROM drive.	D
• Use a calculator.	D
• Use a bar code reader.	D
• Use a tape recorder.	D
• Use a digital camera to take pictures.	D
• Use a video camera.	D
• Use multimedia software	D
• Open a saved file.	D

Fourth Grade Keyboarding Skills Checklist

Students	Use both hands on keyboard (B/C)	Use correct striking techniques (B/C)	Use correct homerow finger pairings (C/D)	Enter data at rate of 11-15 wpm (C/D)	Understands use of keyboard (D)	Identify keys (D)	Recognize letters on keyboard as capitals (D)	Recognize that typed letters are lower case(D)	Identify location/function of enter key (D)	Identify location/function of escape key (D)	Identify location/ function of spacebar (A)	Identify location/function of shift key (D)	Identify location/function of arrow keys (D)	Identify location/function of backspace key (D)	Identify location/function of tab key (D)	Identify and properly use mouse (D)	Use correct posture (D)	Understand clicking function of mouse (D)	Locate, identify, and use letter keys (D)	Locate, identify, and use number keys (D)	Locate, identify, and use punctuation keys (D)	Use left hand on keyboard (D)	Use right hand on keyboard (D)	Use thumb on spacebar (D)

A (Observe teacher modeling)   B (Teacher Guidance)   C (Minimal Teacher Support)   D (Independent)

Fourth Grade Technology Competency Skills Checklist

Students	Add text boxes (B/C)	Use the Internet for locating and retrieving information. (B/C)	Access and use spreadsheet and database (B/C)	Use cut, copy, and paste functions (C)	Use scanner (C)	Resize pictures (C/D)	Use tool icons (C/D)	Use VCR (C/D)	Use laserdisc player (C/D)	Respect hardware (D	Respect software (D)	Comply with district guidelines (D)	Identify computer components (D)	"Log in" and "log out" (D)	Open by double clicking (D)	Identify and properly use mouse (D)	Identify and properly use arrow keys (D)	Use menu bar (D)	Change font, color, and size (D)	Use correct spacing between words (D)	Use correct spacing after punctuation (d)	Use spell check (D)	Name and save file (D)	Add graphics (D)	Open, close, and restore Windows (D)	Use CD-ROM drive (D)	Use calculator (D)	Use bar code reader (D)	Use tape recorder (D)	Use digital camera (D)	Use video camera (D)	Use multimedia software (D)	Open saved file (D)

A (Observe teacher modeling)   B (Teacher Guidance)   C (Minimal Teacher Support)   D (Independent)

Instructional Management Suggestions
For Fourth Grade

Each student will increase individual skills by using the grade-level designated keyboarding software for a minimum of 15 - 20 minutes weekly.

The teacher will
- Use the large screen monitor when modeling or demonstrating technology/keyboarding skills.
- Integrate technology competencies and keyboarding throughout the day.

Using Mavis Beacon in the Classroom

The network version of *Mavis Beacon Teaches Typing* has an Instructor Application that is designed to organize, define, and track progress for every Class of users, and for each individual User within a Class. The teacher is able to set skill level, target speed, frequency of typing "games," and type of keyboard to be used. In addition, the teacher will be able to track User development through progress charts and statistics displayed as a class's achievement or an individual's achievement.

Mavis Beacon Teaches Typing in the classroom, there are four major components: Laptop, Finger Positioning Chart, Progress Chart, and Fun and Games. These four modules may be reached from the classroom screen. Other options are also available from this screen.

Laptop
- contains the lessons teaching letters and correct fingering
    - ◊ pretest or start at beginning
    - ◊ lessons presented in sequence

Finger Positioning Chart
- gives instruction on correct fingering
- shows "Guide Hands" with correct hand positioning

Progress Chart
- allows students to view graphs representing
    - ◊ accuracy
    - ◊ speed
    - ◊ areas for improvement
- allows printable progress reports

Fun and Games
- contains 3 levels
    - ◊ beginning
    - ◊ intermediate
    - ◊ advanced
- Encourage Fun and Games **only** after a majority of the keys have been introduced and practiced.
- Some of these games will follow lessons from the Laptop module and will be appropriate according to the student's level.

Other Options
- **Preferences** allows control of the following options
    - ◊ skill level
    - ◊ words per minute
    - ◊ games
    - ◊ animations
    - ◊ keyboard teaching style
    - ◊ passwords set to block other users
- **Audio Feature**
    - ◊ musical selections
    - ◊ on/off features for Mavis' voice, background music, and sound effects

Suggestions for Multitasking

Multitasking allows students to observe, practice, use, and apply keyboarding skills. Some suggestions for facilitating multitasking within the classroom are listed below:

- handwriting
- writer's workshop
- silent reading time
- laserdisc activities
- center/station time
- integrated time

- journal writing
- listening station
- math
- morning warm-up
- guided reading time
- language arts

Student needs and available technology determine the number of groups and group size. For example, you may want to have larger groups with three different rotations or smaller groups with four or more rotations. The teacher's availability depends on the students' needs and the objectives being taught or practiced. The teacher may be engaged in direct teaching (as in guided reading) or observing/facilitating (as in monitoring student work).

Specific examples for managing multitasking throughout the day:

1. ***With teacher engaged:***
- Three groups of students
    - Group A - Keyboarding
    - Group B - Guided reading with the teacher
    - Group C - Writing activity

- Four groups of students
    - Group A - Keyboarding
    - Group B - Math manipulatives for concept development
    - Group C - Guided reading with the teacher
    - Group D - Listening station

- Five groups of students
    - Group A - Keyboarding
    - Group B - Guided reading with the teacher
    - Group C - Activity from Integrated Curriculum
    - Group D - Math
    - Group E - Journal writing

2. ***With teacher observing/facilitating:***

- Three groups of students
    - Group A - Keyboarding
    - Group B - Handwriting
    - Group C - Laserdisc activity

- Four groups of students
    - Group A - Keyboarding
    - Group B - Silent independent reading
    - Group C - Math
    - Group D - Journal writing

- Five groups of students
    - Group A - Keyboarding
    - Group B - Activity from Integrated Curriculum
    - Group C - Partner reading
    - Group D - Handwriting
    - Group E - Art activity

Fifth Grade

Keyboarding Skills for Fifth Grade

> **A: Observing Teacher Modeling of Skills**
> **B: Practicing Skills with Teacher Guidance**
> **C: Using Skills with Minimal Teacher Support**
> **D: Applying Skills Independently**
> **X: Not Covered**

Objectives:

• Use correct technique for key striking and keying by touch.	C/D
• Understand that the keyboard is a data input device.	D
• Identify keys on the right and left side of the keyboard.	D
• Recognize letters on the keyboard as capital letters.	D
• Recognize that letters typed on the keyboard are lower case unless the Shift Key is used.	D
• Learn the location and function of these keys: Enter, Escape, Spacebar, Shift, Arrows, and Backspace.	D
• Identify the location and function of the Tab Key.	D
• Identify and properly use the mouse.	D
• Use correct posture.	D
• Use "single-click," "double click," and "click-and-drag" functions of the mouse.	D
• Locate, identify, and use letter, number, and punctuation keys.	D
• Use left hand on the left side of the keyboard.	D
• Use right hand on the right side of the keyboard.	D
• Use both hands simultaneously on the keyboard.	D
• Use thumb on the spacebar.	D
• Use correct hand-finger, home row, and pairing of fingers.	D
• Enter data at a rate of 11-15 words per minute.	D

Technology Competency Skills for Fifth Grade

> **A: Observing Teacher Modeling of Skills**
> **B: Practicing Skills with Teacher Guidance**
> **C: Using Skills with Minimal Teacher Support**
> **D: Applying Skills Independently**
> **X: Not Covered**

Objectives:

• Use a scanner.	C
• Add text boxes.	C/D
• Use the Internet for locating and retrieving information.	C/D
• Access and use an existing spreadsheet and database.	C/D
• Use a laserdisc player.	C/D
• Show respect for computer hardware.	D
• Show respect for computer software.	D
• Understand and comply with the District Acceptable Use Guidelines.	D
• Identify the following components of a computer system: CPUs, monitor, mouse, mouse pad, sound device, earphones, and keyboard.	D
• "Log in" and "log out."	D
• Open a program by "double clicking" on an icon.	D
• Use the mouse to control the cursor.	D
• Use the arrow keys to control the cursor.	D
• Use appropriate items on a menu bar, e.g., "Print" and "Save."	D
• Resize pictures.	D
• Change font, color, and size.	D
• Use correct spacing between words.	D
• Use correct spacing following punctuation.	D
• Use spell check.	D
• Name and save a file.	D
• Add graphics to a composition.	D
• Use the tool icons such as bold, italicize, underline, paragraph indent, and justification.	D
• Understand and use the cut, copy, and paste information.	D
• Open, close, and restore Windows.	D
• Access information on a CD-ROM drive.	D
• Use a VCR.	D
• Use a calculator.	D
• Use a bar code reader.	D
• Use a tape recorder.	D
• Use a digital camera to take pictures.	D
• Use a video camera.	D
• Use multimedia software	D
• Open a saved file.	D

Fifth Grade Keyboarding Skills Checklist

Students	Use correct striking techniques (C/D)	Understands function of keyboard (D)	Identify keys on right and left side (D)	Recognize letters on keyboard as capitals (D)	Recognize that typed letters are lower case(D)	Identify location and function of enter key (D)	Identify location and function of escape key (D)	Identify location and function of spacebar (D)	Identify location and function of shift key (D)	Identify location and function of arrow keys (D)	Identify location and function of backspace key (D)	Identify location and function of tab key (D)	Identify and properly use mouse (D)	Use correct posture (D)	Use clicking functions of mouse (D)	Identify location and function of letter key (D)	Identify location and function of number keys (D)	Use punctuation keys (D)	Use left hand (D)	Use right hand (D)	Use both hands simultaneously (D)	Use thumb on the spacebar (D)	Use correct homerow finger pairings (D)	Enter data at a rate of 11-15 wpm (D)

A (Observe teacher modeling)   B (Teacher Guidance)   C (Minimal Teacher Support)   D (Independent)

Fifth Grade Technology Competency Skills Checklist

Students	Use scanner (C)	Add text boxes (C/D)	Use the Internet for locating and retrieving information. (C/D)	Access and use spreadsheet and database (C/D)	Use laserdisc player (C/D)	Respect hardware (D)	Respect software (D)	Comply with district guidelines (D)	Identify computer components (D)	"Log in" and "log out" (D)	Open by double clicking (D)	Properly use mouse (D)	Use arrow keys (D)	Use menu bar (D)	Resize pictures (D)	Change font, color, and size (D)	Use correct spacing between words (D)	Use correct spacing after punctuation (D)	Use spell check (D)	Name and save file (D)	Add graphics (D)	Use tool icons (D)	Cut, copy, and paste (D)	Open, close, and restore windows (D)	Use CD-ROM drive (D)	Use VCR (D)	Use calculator (D)	Use bar code reader (D)	Use tape recorder (D)	Use digital camera (D)	Use video camera (D)	Use multimedia software (D)	Open saved file (D)

A (Observe teacher modeling)   B (Teacher Guidance)   C (Minimal Teacher Support)   D (Independent)

Instructional Management Suggestions
For Fifth Grade

Each student will increase individual skills by using the grade-level designated keyboarding software for a minimum of 15 - 20 minutes weekly.

The teacher will
- Use the large screen monitor when modeling or demonstrating technology/keyboarding skills.
- Integrate technology competencies and keyboarding throughout the day.

Using Mavis Beacon in the Classroom

The network version of ***Mavis Beacon Teaches Typing*** has an Instructor Application that is designed to organize, define, and track progress for every Class of users, and for each individual User within a Class. The teacher is able to set skill level, target speed, frequency of typing "games," and type of keyboard to be used. In addition, the teacher will be able to track User development through progress charts and statistics displayed as a Class's achievement or an individual's achievement.

Mavis Beacon Teaches Typing has four major components: Laptop, Finger Positioning Chart, Progress Chart, and Fun and Games. These four modules may be reached from the classroom screen. Other options are also available from this screen.

Laptop
- contains the lessons teaching letters and correct fingering
    - ◊ pretest or start at beginning
    - ◊ lessons presented in sequence

Finger Positioning Chart
- gives instruction on correct fingering
- shows "Guide Hands" with correct hand positioning

Progress Chart
- allows students to view graphs representing
    - ◊ accuracy
    - ◊ speed
    - ◊ areas for improvement
- allows printable progress reports

Fun and Games
- contains 3 levels
  ◊ beginning
  ◊ intermediate
  ◊ advanced
- Encourage Fun and Games **only** after a majority of the keys have been introduced and practiced.
- Some of these games will follow lessons from the Laptop module and will be appropriate according to the student's level.

Other Options
- **Preferences** allows control of the following options
  ◊ skill level
  ◊ words per minute
  ◊ games
  ◊ animations
  ◊ keyboard teaching style
  ◊ passwords set to block other users
- **Audio Feature**
  ◊ musical selections
  ◊ on/off features for Mavis' voice, background music, and sound effects

Suggestions for Multitasking

Multitasking allows students to observe, practice, use, and apply keyboarding skills. Some suggestions for facilitating multitasking within the classroom are listed below:

handwriting	journal writing
writer's workshop	listening station
silent reading time	math
laserdisc activities	morning warm-up
center/station time	guided reading time
integrated time	language arts

Student needs and available technology determine the number of groups and group size. For example, you may want to have larger groups with three different rotations or smaller groups with four or more rotations. The teacher may be engaged in direct teaching (as in guided reading) or observing/facilitating (as in monitoring student work).

Specific examples for managing multitasking throughout the day:

1. ***With teacher engaged:***
   - Three groups of students
         Group A - Keyboarding
         Group B - Guided reading with the teacher
         Group C - Writing activity

   - Four groups of students
         Group A - Keyboarding
         Group B - Math manipulatives for concept development
         Group C - Guided reading with the teacher
         Group D - Listening station

   - Five groups of students
         Group A - Keyboarding
         Group B - Guided reading with the teacher
         Group C - Activity from Integrated Curriculum
         Group D - Math
         Group E - Journal writing

2. ***With teacher observing/facilitating:***

   - Three groups of students
         Group A - Keyboarding
         Group B - Handwriting
         Group C - Laserdisc activity

   - Four groups of students
         Group A - Keyboarding
         Group B - Silent independent reading
         Group C - Math
         Group D - Journal writing

   - Five groups of students
         Group A - Keyboarding
         Group B - Activity from Integrated Curriculum
         Group C - Partner reading
         Group D - Handwriting
         Group E - Art activity

TEKS

Texas Essential Knowledge and Skills For Technology Applications

www.tea.state.tx.us/teks

http://129.120.20.20/trainer/WebSites/START/index.htm

Chapter 126. Texas Essential Knowledge and Skills for Technology Applications

Subchapter A. Elementary

Statutory Authority: The provisions of this Subchapter A issued under the Texas Education Code, §28.002, unless otherwise noted.

§126.1. Implementation of Texas Essential Knowledge and Skills for Technology Applications, Elementary.

The provisions of this subchapter shall be effective September 1, 1998.

Source: The provisions of this §126.1 adopted to be effective September 1,1998, 22 TexReg 5203.

§126.2. Technology Applications, Kindergarten-Grade 2.

(a) Introduction.

   (1) The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication.

   (2) Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results.

(b) Knowledge and skills.

   (1) Foundations. The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:

      (A) use technology terminology appropriate to the task;

      (B) start and exit programs as well as create, name, and save files; and

      (C) use networking terminology such as on-line, network, or password and access remote equipment on a network such as a printer.

   (2) Foundations. The student uses data input skills appropriate to the task. The student is expected to:

      (A) use a variety of input devices such as mouse, keyboard, disk drive, modem, voice/sound recorder, scanner, digital video, CD-ROM, or touch screen;

(B) use proper keyboarding techniques such as correct hand and body positions and smooth and rhythmic keystroke patterns as grade-level appropriate;

(C) demonstrate touch keyboarding techniques for operating the alphabetic, numeric, punctuation, and symbol keys as grade-level appropriate;

(D) produce documents at the keyboard, proofread, and correct errors; and

(E) use language skills including capitalization, punctuation, spelling, word division, and use of numbers and symbols as grade-level appropriate.

(3) Foundations. The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

(A) follow acceptable use policies when using computers; and

(B) model respect of intellectual property by not illegally copying software or another individual's electronic work.

(4) Information acquisition. The student uses a variety of strategies to acquire information from electronic resources, with appropriate supervision. The student is expected to:

(A) apply keyword searches to acquire information; and

(B) select appropriate strategies to navigate and access information for research and resource sharing.

(5) Information acquisition. The student acquires electronic information in a variety of formats, with appropriate supervision. The student is expected to:

(A) acquire information including text, audio, video, and graphics; and

(B) use on-line help.

(6) Information acquisition. The student evaluates the acquired electronic information. The student is expected to:

(A) determine the success of strategies used to acquire electronic information; and

(B) determine the usefulness and appropriateness of digital information.

(7) Solving problems. The student uses appropriate computer-based productivity tools to create and modify solutions to problems. The student is expected to:

(A) use software programs with audio, video, and graphics to enhance learning experiences; and

(B) use appropriate software, including the use of word processing and multimedia, to express ideas and solve problems.

(8) Solving problems. The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

    (A) use communication tools to participate in group projects; and

    (B) use electronic tools and research skills to build a knowledge base regarding a topic, task, or assignment.

(9) Solving problems. The student uses technology applications to facilitate evaluation of work, both process and product. The student is expected to:

    (A) use software features, such as on-line help, to evaluate work progress; and

    (B) use software features, such as slide show previews, to evaluate final product.

(10) Communication. The student formats digital information for appropriate and effective communication. The student is expected to:

    (A) use font attributes, color, white space, and graphics to ensure that products are appropriate for the defined audience; and

    (B) use font attributes, color, white space, and graphics to ensure that products are appropriate for the communication media including multimedia screen displays and printed materials.

(11) Communication. The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

    (A) publish information in a variety of media including, but not limited to, printed copy or monitor display; and

    (B) publish information in a variety of media including, but not limited to, stored files or video.

(12) Communication. The student uses technology applications to facilitate evaluation of communication, both process and product. The student is expected to:

    (A) select representative products to be collected and stored in an electronic evaluation tool; and

    (B) evaluate the product for relevance to the assignment or task.

Source: The provisions of this §126.2 adopted to be effective September 1,1998, 22 TexReg 5203.

§126.3. Technology Applications, Grades 3-5.

(a) Introduction.

  (1) The technology applications curriculum has four strands: foundations, information acquisition, work in solving problems, and communication.

  (2) Through the study of technology applications foundations, including technology-related terms, concepts, and data input strategies, students learn to make informed decisions about technologies and their applications. The efficient acquisition of information includes the identification of task requirements; the plan for using search strategies; and the use of technology to access, analyze, and evaluate the acquired information. By using technology as a tool that supports the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create a solution, and evaluate the results. Students communicate information in different formats and to diverse audiences. A variety of technologies will be used. Students will analyze and evaluate the results.

(b) Knowledge and skills.

  (1) Foundations. The student demonstrates knowledge and appropriate use of hardware components, software programs, and their connections. The student is expected to:

    (A) use technology terminology appropriate to the task;

    (B) save and delete files, uses menu options and commands, and work with more than one software application;

    (C) identify and describe the characteristics of digital input, processing, and output;

    (D) delineate and make necessary adjustments regarding compatibility issues including, but not limited to, digital file formats and cross platform connectivity; and

    (E) access remote equipment on a network such as a printer or other peripherals.

  (2) Foundations. The student uses data input skills appropriate to the task. The student is expected to:

    (A) use a variety of input devices such as mouse, keyboard, disk drive, modem, voice/sound recorder, scanner, digital video, CD-ROM, or touch screen;

    (B) use proper keyboarding techniques such as correct hand and body positions and smooth and rhythmic keystroke patterns;

    (C) demonstrate touch keyboarding techniques for operating the alphabetic, numeric, punctuation, and symbol keys as grade-level appropriate;

    (D) produce documents at the keyboard, proofread, and correct errors;

    (E) use language skills including capitalization, punctuation, spelling, word division, and use of numbers and symbols as grade-level appropriate; and

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(F) demonstrate an appropriate speed on short timed exercises depending upon the grade-level and hours of instruction.

(3) Foundations. The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

(A) follow acceptable use policies when using computers; and

(B) model respect of intellectual property by not illegally copying software or another individual's electronic work.

(4) Information acquisition. The student uses a variety of strategies to acquire information from electronic resources, with appropriate supervision. The student is expected to:

(A) apply appropriate electronic search strategies in the acquisition of information including keyword and Boolean search strategies; and

(B) select appropriate strategies to navigate and access information on local area networks (LANs) and wide area networks (WANs), including the Internet and intranet, for research and resource sharing.

(5) Information acquisition. The student acquires electronic information in a variety of formats, with appropriate supervision. The student is expected to:

(A) acquire information including text, audio, video, and graphics; and

(B) use on-line help and documentation.

(6) Information acquisition. The student evaluates the acquired electronic information. The student is expected to:

(A) apply critical analysis to resolve information conflicts and validate information;

(B) determine the success of strategies used to acquire electronic information; and

(C) determine the usefulness and appropriateness of digital information.

(7) Solving problems. The student uses appropriate computer-based productivity tools to create and modify solutions to problems. The student is expected to:

(A) use software programs with audio, video, and graphics to enhance learning experiences;

(B) use appropriate software to express ideas and solve problems including the use of word processing, graphics, databases, spreadsheets, simulations, and multimedia; and

(C) use a variety of data types including text, graphics, digital audio, and video.

(8) Solving problems. The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

   (A) use communication tools to participate in group projects;

   (B) use interactive technology environments, such as simulations, electronic science or mathematics laboratories, virtual museum field trips, or on-line interactive lessons, to manipulate information; and

   (C) participate with electronic communities as a learner, initiator, contributor, or mentor.

(9) Solving problems. The student uses technology applications to facilitate evaluation of work, both process and product. The student is expected to:

   (A) use software features, such as on-line help, to evaluate work progress; and

   (B) use software features, such as slide show previews, to evaluate final product.

(10) Communication. The student formats digital information for appropriate and effective communication. The student is expected to:

   (A) use font attributes, color, white space, and graphics to ensure that products are appropriate for the defined audience;

   (B) use font attributes, color, white space, and graphics to ensure that products are appropriate for the communication media including multimedia screen displays, Internet documents, and printed materials; and

   (C) use appropriate applications including, but not limited to, spreadsheets and databases to develop charts and graphs by using data from various sources.

(11) Communication. The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

   (A) publish information in a variety of media including, but not limited to, printed copy, monitor display, Internet documents, and video; and

   (B) use presentation software to communicate with specific audiences.

(12) Communication. The student uses technology applications to facilitate evaluation of communication, both process and product. The student is expected to:

   (A) select representative products to be collected and stored in an electronic evaluation tool;

   (B) evaluate the product for relevance to the assignment or task; and

   (C) create technology assessment tools to monitor progress of project such as checklists, timelines, or rubrics.

Source: The provisions of this §126.3 adopted to be effective September 1,1998, 22 TexReg 5203.

Guidelines for Acceptable Use
of Plano Independent School District
Technology Resources

The Plano Independent School District provides technology resources to its students and staff for educational and administrative purposes. The goal in providing these resources is to promote educational excellence in the Plano schools by facilitating resource sharing, innovation and communication with the support and supervision of parents, teachers and support staff. The use of these technology resources is a privilege, not a right.

With access to computers and people all over the world comes the potential availability of material that may not be considered to be of educational value in the context of the school setting. Plano ISD firmly believes that the value of information, interaction, and research capabilities available outweighs the possibility that users may obtain material that is not consistent with the educational goals of the district.

Proper behavior, as it relates to the use of computers, is no different than proper behavior in all other aspects of Plano ISD activities. All users are expected to use the computers and computer networks in a responsible, ethical, and polite manner. This document is intended to clarify those expectations as they apply to computer and network usage and is consistent with District Guidelines CQ (Local).

Definition of District Technology Resources
The District's computer systems and networks are any configuration of hardware and software. The systems and networks include all of the computer hardware, operating system software, application software, stored text, and data files. This includes electronic mail, local databases, externally accessed databases (such as the Internet), CD-ROM, optical media, clip art, digital images, digitized information, communications technologies, and new technologies as they become available. The District reserves the right to monitor all technology resource activity.

Acceptable Use
The District's technology resources will be used only for learning, teaching and administrative purposes consistent with the District's mission and goals. Commercial use of the District's system is strictly prohibited.

The District will make training available to all users in the proper use of the system and will make copies of acceptable use guidelines available to all users. All training in the use of the District's system will emphasize the ethical use of this resource.

Software or external data may not be placed on any computer, whether stand-alone or networked to the District's system, without permission from the Superintendent or designee.

Other issues applicable to acceptable use are:

1. **Copyright**: All users are expected to follow existing copyright laws, copies of which may be found in each campus library.
2. **Supervision and permission**: Student use of the computers and computer network is only allowed when supervised or granted permission by a staff member.
3. **Attempting to log on or logging on to a computer or email system by using another's password is prohibited**: Assisting others in violating this rule by sharing information or passwords is unacceptable.

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4.   Improper use of any computer or the network is prohibited. This includes the following:
- Using racist, profane, or obscene language or materials
- Using the network for financial gain, political or commercial activity
- Attempting to or harming equipment, materials or data
- Attempting to or sending anonymous messages of any kind
- Using the network to access inappropriate material
- Knowingly placing a computer virus on a computer or the network
- Using the network to provide addresses or other personal information that others may use inappropriately
- Accessing of information resources, files and documents of another user without their permission

System Access
Access to the District's network systems will be governed as follows:
1. Students will have access to the District's resources for class assignments and research with their teacher's permission and/or supervision.
2. Teachers with accounts will be required to maintain password confidentiality by not sharing the password with students or others.
3. With the approval of the immediate supervisor, district employees will be granted access to the District's system.
4. Any system user identified as a security risk or having violated District Acceptable Use Guidelines may be denied access to the District's system. Other consequences may also be assigned.

Campus Level Coordinator Responsibilities
As the campus level coordinator for the network systems, the principal or designee will:
1. Be responsible for disseminating and enforcing the District Acceptable Use Guidelines for the District's system at the campus level.
2. Ensure that employees supervising students who use the District's systems provide information emphasizing the appropriate and ethical use of this resource.

Individual User Responsibilities
The following standards will apply to all users of the District's computer network systems:
1. The individual in whose name a system account is issued will be responsible at all times for its proper use.
2. The system may not be used for illegal purposes, in support of illegal activities, or for any other activity prohibited by district guidelines.
3. System users may not use another person's system account without written permission from the campus coordinator or principal, as appropriate.
4. System users are asked to purge electronic mail or outdated files on a regular basis.
5. System users are responsible for making sure they do not violate any copyright laws. Copies of District Policies EFE, EFE (Local), EFE(E), and EFE(E)(Local) are available at all sites.

Vandalism Prohibited
Any malicious attempt to harm or destroy District equipment or materials, data of another user of the District's system, or any of the agencies or other networks to which the District has access is prohibited. Deliberate attempts to degrade or disrupt system performance may be viewed as violations of district guidelines and, possibly, as criminal activity under applicable state and federal laws, including the Texas Penal Code, Computer Crimes, Chapter 33. This includes, but is not limited to, the uploading or creating of computer viruses.

Vandalism as defined above will result in the cancellation of system use privileges, possible prosecution, and will require restitution for costs associated with system restoration, hardware, or software costs.

Forgery Prohibited
Forgery or attempted forgery of electronic messages is prohibited. Attempts to read, delete, copy, or modify the electronic mail of other system users or deliberate interference with the ability of other system users to send/receive electronic mail is prohibited.

Information Content/Third Party Supplied Information
System users and parents of students with access to the District's system should be aware that use of the system may provide access to other electronic communications systems outside the District's networks that may contain inaccurate and/or objectionable material.

A student bringing prohibited materials into the school's electronic environment will be subject to a suspension and/or a revocation of privileges on the District's system and will be subject to disciplinary action in accordance with the Student Code of Conduct. An employee knowingly bringing prohibited materials into the school's electronic environment will be subject to disciplinary action in accordance with District policies.

Network Etiquette
System users are expected to observe the following network etiquette (also known as netiquette):
1. Use appropriate language: swearing, vulgarity, ethnic or racial slurs, and any other inflammatory language are prohibited.
2. Pretending to be someone else when sending/receiving messages is prohibited.
3. Transmitting obscene messages or pictures is prohibited.
4. Revealing such personal information as addresses or phone numbers of users or others is prohibited.
5. Using the network in such a way that would disrupt the use of the network by other users is prohibited.
6. Be polite. For example, messages typed in capital letters are the computer equivalent of shouting and are considered rude.

Termination/Revocation of System User Account
The District may suspend or revoke a system user's access to the District's system upon violation of District guidelines and/or administrative regulations regarding acceptable use.

Termination of an employee's account or of a student's access will be effective on the date the principal or campus coordinator receives notice of user withdrawal or of revocation of system privileges, or on a future date if so specified in the notice.

Consequences of Improper Use
Improper or unethical use may result in disciplinary actions consistent with the existing Student Discipline Guidelines and, if appropriate, the Texas Penal Code, Computer Crimes, Chapter 33, or other state and federal laws. This may also require restitution for costs associated with system restoration, hardware, or software costs.

Disclaimer
The District's system is provided on an "as is, as available" basis. The District does not make any warranties, whether expressed or implied, including, without limitation, those of fitness for a particular purpose with respect to any services provided by the system and any information or software contained therein. The District uses a variety of vendor-supplied hardware and software. Therefore, the District does not warrant that the functions or services performed by, or that the information or software contained on the system will meet the user's requirements. Neither does the District warrant that the system will be uninterrupted or error-free, nor that defects will be corrected.

Opinions, advice, services, and all other information expressed by system users, information providers, service providers, or other third party individuals in the system are those of the providers and not necessarily the District.

The District will cooperate fully with local, state, or federal officials in any investigation concerning or relating to misuse of the District's computer systems and networks.

Last update: October 11, 1996

Glossary of Keyboarding and Technology Terms

ACCURACY - a measure of error in keyboarding

ARROW KEYS - keys used to move the cursor up, down, left, or right around screen

BACKSPACE KEY- key used to back up and erase the character or space to the left of the cursor

BAR CODE READER- electronic input device which uses light to reflect a printed bar code to produce images or information

BOLD: characters shown with thicker, darker strokes

BROWSER - software used to access the World Wide Web (Internet) to view text, as well as a variety of other media types

CD - compact disc; typically contains only audio

CD-ROM - compact disc that contains a variety of types of computer data

CPU - (Central Processing Unit) component of a computer system where programs actually operate

CALCULATOR - an electronic device which performs mathematical calculations

CAPS LOCK KEY - key pressed to turn everything you type into CAPITAL LETTERS

CLICK - to press and release a button on your mouse

CLICK AND DRAG - holding down the left mouse button while moving the mouse/cursor

COMBINATION KEYS - two keys used together, such as the shift key and the number 1 to make an exclamation point

CONTROL KEY - A key used to give another set of commands. Control (ctrl) commands are commonly used shortcuts. For example, pressing Ctrl+S in many programs saves a document in the same fashion as selecting Save from the File menu.

COPY - to make an exact duplicate of information in a document so it can be placed in a new location

CURSOR - visually distinct mark that shows the point on a display screen where the next letter, number, symbol, or space will be entered

CUT - deletion of text or graphics that can subsequently be placed in a new location

DATABASE - a program that helps manage large collections of information

DELETE KEY - the key pressed to remove selected text or objects

DIGITAL CAMERA - camera takes pictures without film, and stores your snapshots as digital files

DISK DRIVE - the unit into which a floppy disk is inserted to be read or written by the computer

DOUBLE-SPACE - horizontal line spacing which leaves one blank line space between displayed or printed lines of text

EARPHONES - peripheral units attached to the computer and worn over the ears allowing for transmission of audio signal

EDIT - the process of rearranging, changing, and correcting text or graphics

ENTER KEY - the key pressed to begin a new line in a word processor, or to signal the computer that data has been typed in and completed (also called Return Key)

E-MAIL - sending and receiving messages through a computer network (electronic mail)

ESCAPE KEY - a key which lets the user cancel the last operation and go back to the previous screen

FILE - a collection of information stored on a computer, network, or on a floppy disk, with its own file name.

FLOPPY DISK - a removable disk that stores information magnetically

FONT - a set of characters with a particular design and size

FUNCTION KEYS - keys labeled from F1 to F12 that can be pressed to do a certain task

GRAPHICS - digital images or pictures

HARD DISK - an internal device that a computer uses to store information

HOME ROW KEYS - on the keyboard, the keys A, S, D, F, J, K, L,: (semicolon); used in the QWERTY method of keyboarding

HTTP - (Hyper Text Transfer Protocol) standard transmission format for the World Wide Web (internet)

ICON - a small image on the screen that represents a file, program, peripheral, or tool

INDENT - to set in from the margin, as the first line of a paragraph

INSERT - the key used to switch between the insert and type over modes

INTERNET - the largest computer network in the world, reaching millions of people, on thousands of interconnected networks

ITALICS - style of characters which slant upward to the right

JUSTIFICATION - alignment of text on a page (left, right, center, or full)

KEY - the process of striking keys to record and display words and data

KEYBOARD - an arrangement of keys on a "board" that is attached to a computer used to input data

LASERDISC - optical disc on which images and audio are recorded for playback on a television screen or monitor

LOG IN - to gain access to a computer system, usually by entering user name (login) and password

LOG OUT - terminating a connection to a network

MENU - a list of options from which to choose

MONITOR - a device that displays text and graphics generated by a computer

MOUSE - a device that controls the pointer on the screen

MOUSE PAD - pad on which a mouse operates

MULTIMEDIA - blend of text, graphics, sound, animation, and video on the computer

NUMERIC KEYPAD - section of a keyboard, set up like an adding machine or calculator

PRINT - to produce a paper copy of information displayed on a monitor. A user can also print files, faxes, and screens.

PRINTER - a device that produces a paper copy of the information on your screen.

PROOFREAD - to read text (copy) on the monitor or on a print-out and to correct errors

RESIZE - change the size of a picture or graphic

RETRIEVE - bring stored files from a network or disk to work on in a computer

SAVE - to store a document for future use

SCANNER - device that transfers printed image into digital information on a computer

SEARCH ENGINE - an Internet index of information stored on sites around the world

SHIFT KEY - a key used to make capital letters and certain symbols when pressed in combination with another key

SHORTCUT KEYS - a single key or combination of keys used to save keystrokes or mouse operations

SINGLE-SPACE - to leave no space between lines of text in a document

SOUND DEVICE - a component in a computer that plays and records sounds

SPACE BAR - a long bar at the bottom of a keyboard used to create a blank space in text, moving to the right one space at a time

SPELL CHECK - a program available in many computer applications that checks spelling

SPREADSHEET - a program used for managing, analyzing, and presenting information. Spreadsheets allow information to be sorted or displayed in a chart or graph as well perform calculations on data.

TAB KEY - when pressed, moves the cursor to settings that are used to line up columns of text in a document or to move to data entry areas in programs or dialog boxes

TEXT BOX - graphic function in which text may be displayed separately from the main body of text

WINDOW - a rectangle on the screen that displays information. A window can contain small images (icons), a document, or an application.

WORD PROCESSOR - software that can be used to produce documents, including letters, reports, manuals, and newsletters

WPM - words per minute

WORLD WIDE WEB (WWW) - a section of the Internet that lets you access text, and a variety of other media types of information

UNIVERSAL RESOURCE LOCATOR (URL) -address of a particular site or page on the Internet. For example, the URL of the Plano ISD Instructional Resource Internet server is (http://k-12.pisd.pisd.edu).

VCR - video cassette recorder

VIDEO CAMERA - camera which records and plays visual images and sounds made on magnetic tape

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