Tennessee CTE

Principles of Office Applications (2024): Grades 9-12

Input Methods 1	**1** Speed of Input: Demonstrate improvement in speed and accuracy in keyboarding. 1.1
	2 Technique: Demonstrate proper keyboarding technique. 1.2
	3 Ergonomic Principles: Identify and utilize proper ergonomic principles in keyboarding, including hand position, distance from screen, and posture. 1.
	4 Input Sources: Demonstrate input of data from various sources (keyboards, cameras, scanners, etc.). 1.
Basic Operations 2	**1** Program Interface: Demonstrate knowledge and use of multiple program interfaces including menu items, ribbons, toolbars, and dialog boxes. 2.1
	2 File Management: Correctly and safely execute basic file management operations, including the opening, creating, copying, moving, deleting, and renaming of files and folders, as well as searching for a specified file or folder in networked or local locations. 2.2
	3 Hardware Management: Identify, connect, and demonstrate the correct usage of computer hardware and accessories. These may include a monitor, keyboard, mouse, and USB devices. Perform basic troubleshooting as needed for situations involving these components (e.g., if the computer does not recognize a device). 2.
	4 Application and Software Management: Determine appropriate software application for specific tasks. Describe the steps necessary to retrieve, download, and safely install new applications, updates, and plug-ins from the Internet. 2.4
	5 Network Access: Describe characteristics and advantages of WiFi (wireless) and wired networks. Identify common equipment and cables needed for wired network access. Identify common equipment needed for WiFi access. Connect to a network. 2.5
	6 Security: Describe the basic principles of network security, including firewalls, antivirus software, and proper authentication. Demonstrate proper authentication techniques by logging on to appropriate networks. 2.6

Skip to main content

Internet Basics 3	**1** **Browsers: Evaluate multiple browsers (Bing, Chrome, Firefox, DuckDuckGo, etc.) and highlight advantages of each. Use browser tools (create bookmarks, clear history, set a homepage) to enhance productivity.** 3.1
	2 **Productivity Tools: Research effective use of cloud storage, online digital collaboration platform, and file sharing applications. Recommend and effectively employ the appropriate file storage and sharing solution for a given project.** 3.2
	3 **Search and Evaluation of Information: Using a browser, conduct a search and evaluate results for accuracy.** 3.3
Word Processing Applications 4	**1** **Document Creation: Use a word processing program to create and format documents with academic and business styles (e.g., memos, letters, agendas, reports, and newsletters).** 4.1
	2 **Formatting Tools: Use advanced formatting tools to create and modify styles, themes, and templates to streamline document production.** 4.2
	3 **Tables: Create and modify tables and table styles, including the use of merged cells, split cells, formulas, and functions. Convert text to tables and tables to text to improve document design.** 4.3
	4 **Formatting Techniques: Use advanced formatting techniques, such as section breaks, columns, and lists, to create complex documents. Format paragraphs to numbered and bulleted lists.** 4.4
	5 **Graphics: Work with graphics, including adding and modifying shapes, pictures, and SmartArt. Insert and format objects, such as images, shapes, and SmartArt, to enhance document visual appeal.** 4.5
	6 **Document Design: Understand and apply principles of document design and layout to create visually appealing and effective documents. Use automatic features to ensure spelling and grammar are correct.** 4.6
	7 **Large Document Organization: Manage and organize large documents using tools such as table of contents, bookmarks, hyperlinks, headers, footers, footnotes, endnotes, and the navigation pane.** 4.7
	8 **Distribution Preparation: Use advanced features, such as mail merge, to create personalized documents and mailing labels. Prepare documents for distribution by saving in various file formats, including PDF, and applying appropriate formatting and compression techniques to reduce file size.** 4.8
	9 **Collaboration Techniques: Collaborate with others using features such as track changes, comments, and co-authoring. Use features to review, reply, resolve, and delete comments. Track, review, accept and reject changes through locking and unlocking change tracking.** 4.9

Skip to main content

Spreadsheet Applications 5

1. **Spreadsheet Creation: Use a spreadsheet program to create, format, and edit business spreadsheets for the purposes of tabulating and calculating numerical and/or textual data (e.g., statistics, historical data, measurements), such as budget calculations, sales reports, and related analyses.** 5.1

2. **Workbook and Worksheet Management: Craft documents using a spreadsheet program using features and methods such as:** 5.2
   - a add data manually into worksheets and import data from sources such as text files and online platforms; 5.2.A
   - b search for data in a workbook and navigate within a workbook; 5.2.B
   - c modify page setup, including headers/footers, and set a print area; 5.2.C
   - d freeze rows and columns to adjust views; 5.2.D
   - e change windows and display formulas; and 5.2.E
   - f adjust column and row width and height, insert and delete columns and rows, and move columns and rows. 5.2.F

3. **Data Manipulation: Format cells and worksheets, including applying number and date formats, fill features, conditional formatting, and using basic formatting tools such as bold, italic, and underline.** 5.3

4. **Tables: Create, apply styles, and format tables from selected cell ranges. Filter and sort data in columns within worksheets and tables.** 5.4

5. **Formulas and Functions: Use basic functions and formulas to perform calculations and functions, such as:** 5.5
   - a inserting references (relative, absolute, and mixed); 5.5.A
   - b use AVERAGE(), MAX(), MIN(), and SUM() formulas to perform calculations; 5.5.B
   - c use RANDBETWEEN() and SEQUENCE() to generate data; 5.5.C
   - d use the IF() function for conditional operations; 5.5.D
   - e use SORT() to sort data; and 5.5.E
   - f use CONCAT() and TEXTJOIN() to format text. 5.5.F

6. **Charts: Create, modify, and format charts to visually represent data. Use features to insert a chart on a chart sheet, add data series, and modify chart elements, layouts, and styles.** 5.6

Presentation Applications 6

1. **Presentation Application: Navigate a slide deck creation application (such as PowerPoint or Google Slides) interface and perform basic operations, such as opening and saving files, creating new slides, and adding and deleting slides.** 6.1

2. **Manage Presentations: Create and deliver effective presentations, demonstrating proficiency in managing slides, incorporating visual elements, and delivering messages with clarity and confidence.** 6.2

Skip to main content

	3	**Manage Slides: Create and format text, images, and multimedia elements on slides using various design and layout tools, such as themes, templates, and slide masters.** 6.3
	4	**Tables, Charts, and Media: Insert and format multimedia elements, such as audio and video clips onto slides, to create dynamic and engaging presentations.** 6.4
	5	**Transitions and Animations: Use basic animation and transition effects to enhance the visual appeal of their presentations.** 6.5
	6	**Presentation Delivery: Evaluate and use advanced features, such as slide shows, presenter view, and speaker notes, to deliver effective presentations.** 6.6
Digital Citizenship 7	1	**Careers: Research recent developments in technology affecting the supply/demand characteristics of the job market, including career pathways and occupational outlooks for occupations that require expertise with office applications.** 7.1
	2	**Copyright Implications and Intellectual Property: Research, summarize, and deliver (via presentation, document, spreadsheet data/chart, or other format) a summary of the various perspectives and ramifications surrounding an ethical issue related to intellectual property rights. Potential issues include copyright infringement, piracy, plagiarism, art licensing, creative commons, and the state/federal laws that govern them.** 7.2
	3	**Ethical Technology Use: Research, summarize, and deliver (via presentation, document, spreadsheet data/chart, or other format) a summary of the various perspectives and ramifications surrounding an ethical issue related to current technology usage. Develop and strengthen claim(s) and counterclaim(s) about the issue, citing supportive evidence. Potential issues include AI, VR, spam, cyberbullying, libel, slandering, and mining of personal data for profit** 7.3