

# **INFORMATION TECHNOLOGY: FUNDAMENTALS**

## Curriculum Content Frameworks

**Please note: All assessment questions will be taken from the knowledge portion of these frameworks.**

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# Curriculum Content Frameworks

## INFORMATION TECHNOLOGY: FUNDAMENTALS

Grade Levels: 8  
Course Code: 399010

Prerequisite: Keyboarding

Course Description: Information Technology: Fundamentals is a one-semester course that will provide students with the opportunity to learn about computer and networking information and to practice these basic technological concepts. This is not an industry-level certified course but rather an opportunity to assist in making immediate course selections and future career choices and gain an exposure to technical life skills.

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# Unit 1: Computer Software

## Hours: 5

Terminology: Application software, Bit, Boot, Byte, Cold boot, Cursor, Delete, Desktop, Directory, File, Filename, Folder, Icon, Log-on, Menu, Operating system, Password, Save, User, User ID, Utility software, Warm boot, Window

<b>CAREER and TECHNICAL SKILLS</b>		<b>ACADEMIC and WORKPLACE SKILLS</b>			
What the Student Should be Able to Do		What the Instruction Should Reinforce			
Knowledge	Application	Skill Group	Skill	Description	
1.1 Explain operating system software	1.1.1 Cite examples of system software	Foundation	Listening	Comprehends ideas and concepts related to operating system software [1.2.1]	
			Reading	Applies/Understands technical words that pertain to computer software [1.3.6]	
1.2 Explain application software	1.2.1 Cite examples of application software	Foundation	Listening	Comprehends ideas and concepts related to application software [1.2.1]	
			Reading	Identifies relevant details, facts, and specifications [1.3.16]	
			Writing	Analyzes data, summarizes results, and makes conclusions [1.6.2]	
1.3 Explain utility software	1.3.1 Cite examples of utility software	Foundation	Listening	Comprehends ideas and concepts related to utility software [1.2.1]	
	1.3.2 Describe uses of various types of utility software		Reading	Identifies relevant details, facts, and specifications [1.3.16]	
			Speaking	Communicates a thought, idea, or fact in spoken form [1.5.5]	
			Writing	Analyzes data, summarizes results, and makes conclusions [1.6.2]	
1.4 Examine file management	1.4.1 Create a folder/directory	Foundation	Reading	Comprehends written information, and applies it to a task [1.3.8]	
	1.4.2 Move, copy, delete, and rename files and folders	Thinking	Knowing how to Learn	Applies new knowledge and skills to perform file management [4.3.1]	
1.5 Describe data representation	1.5.1 Identify data representation in terms of bits and bytes	Foundation	Reading	Analyzes and applies what has been read to a specific task [1.3.2]	
	1.5.2 Recognize file sizes in terms of kilobytes, megabytes, and gigabytes	Thinking	Decision Making	Comprehends ideas and concepts related to file sizes [4.2.2]	

## Unit 2: Word Processing

### Hours: 3

**Terminology:** Clip art, Clipboard, Copy, Cursor, Cut, Default, Editing, File, Formatting, Grammar check, Graphics, Paste, Print, Print preview, Save, Save as, Spell checker, Thesaurus, Word processing, Word wrap

<b>CAREER and TECHNICAL SKILLS</b>		<b>ACADEMIC and WORKPLACE SKILLS</b>			
What the Student Should be Able to Do		What the Instruction Should Reinforce			
Knowledge	Application	Skill Group	Skill	Description	
2.1 Explain word processing software	2.1.1 Define <i>word processing</i>	Foundation	Listening	Listens to and follows directions [1.2.6]	
	2.1.2 Label parts of word processing window		Reading	Comprehends written information for main ideas [1.3.7]	
		Thinking	Reasoning	Comprehends ideas and concepts related to word processing software [4.5.2]	
2.2 Explain the purpose, function, and common features of commonly used word processing programs	2.2.1 Create and save a document/file	Foundation	Listening	Comprehends ideas and concepts related to word processing [1.2.1]	
	2.2.2 Retrieve, proofread, edit, and print documents		Science	Uses equipment and techniques to create a business document [1.4.23]	
	2.2.3 Create a word processing document incorporating a graphic		Writing	Checks, edits, and revises document for correct information, appropriate emphasis, form, grammar, spelling, and punctuation [1.6.5]	
		Thinking	Reasoning	Sees relationship between two or more ideas, objects, or situations [4.5.5]	
			Seeing Things in the Mind's Eye	Organizes and processes images, symbols, pictures, graphs, objects [4.6.2]	

## Unit 3: Spreadsheet

### Hours: 3

Terminology: Active cell, Cell, Cell address, Charts, Column, Formula, Formula bar, Function, Graphics, Label, Row, Sort, Spreadsheet, Value

CAREER and TECHNICAL SKILLS		ACADEMIC and WORKPLACE SKILLS		
What the Student Should be Able to Do		What the Instruction Should Reinforce		
Knowledge	Application	Skill Group	Skill	Description
3.1 Explain spreadsheets	3.1.1 Define <i>spreadsheets</i>	Foundation	Reading	Comprehends main ideas from written information [1.3.7]
	3.1.2 Label the parts of a spreadsheet window	Thinking	Reasoning	Comprehends ideas and concepts related to spreadsheets [4.5.2]
3.2 Explain the purpose, function, and common features of commonly used spreadsheets	3.2.1 Apply basic spreadsheet features and functions to produce a document	Foundation	Reading	Comprehends main ideas from written information [1.3.7]
	3.2.2 Create/Save a spreadsheet document		Science	Uses equipment and techniques to create a spreadsheet document [1.4.23]
	3.2.3 Retrieve, edit, format, and print a spreadsheet document	Thinking	Reasoning	Comprehends ideas and concepts related to spreadsheets [4.5.2]  Sees relationship between two or more ideas, objects, or situations [4.5.5]

## Unit 4: Database

### Hours: 3

Terminology: Database, Field, Form, Query, Record, Report, Table

<b>CAREER and TECHNICAL SKILLS</b>		<b>ACADEMIC and WORKPLACE SKILLS</b>		
What the Student Should be Able to Do		What the Instruction Should Reinforce		
Knowledge	Application	Skill Group	Skill	Description
4.1 Explain databases	4.1.1 Define <i>database</i>	Foundation	Reading	Comprehends main ideas from written information [1.3.7]
	4.1.2 Label parts of a database window	Thinking	Reasoning	Comprehends ideas and concepts related to databases [4.5.2]
4.2 Explain the purpose, function, and features of commonly used databases	4.2.1 Apply basic database features to produce simple records	Foundation	Listening	Uses equipment and techniques to create a business document [1.2.24]
	4.2.2 Create/Save a database file		Reading	Comprehends main ideas from written information [1.3.7]
	4.2.3 Enter records into a table		Writing	Organizes information in an appropriate format [1.6.10]  Records data [1.6.16]

## Unit 5: Internet

### Hours: 5

**Terminology:** Acceptable use policy, Address bar, Address book, Attachment, Bookmark/favorite, Boolean logic, Browser, Cookies, Domain name, Download, E-mail, Hits, Home page, Hyperlinks, Hypertext Markup Language (HTML), Internet Service Provider (ISP), Keywords, Protocols, Search engine, Subscribe, Toolbar, Uniform Resource Locator (URL), User, User name, Web site, Wildcard character, World Wide Web (WWW)

<b>CAREER and TECHNICAL SKILLS</b>			<b>ACADEMIC and WORKPLACE SKILLS</b>		
What the Student Should be Able to Do			What the Instruction Should Reinforce		
Knowledge	Application	Skill Group	Skill	Description	
5.1 Explain the Internet, World Wide Web, e-mail, networks, and their uses	5.1.1 List ways to connect to the Internet	Foundation	Listening	Comprehends ideas and concepts related to the Internet, the World Wide Web, e-mail, and networks [1.2.1]	
	5.1.2 Describe common uses of the Internet		Reading	Comprehends main ideas from written information [1.3.7]	
	5.1.3 Copy/Save text, Web pages, and images from the Internet		Writing	Organizes information in an appropriate format [1.6.10]	
5.2 Discuss Internet safety and security issues	5.2.1 Identify Internet safety and security concerns	Foundation	Reading	Identifies relevant details, facts, and specifications [1.3.16]	
	5.2.2 Examine precaution and protection measures regarding the Internet	Thinking	Reasoning	Uses logic to draw conclusions from available information [4.5.6]	

## Unit 6: Presentation

### Hours: 6

Terminology: Animation, Audience handouts, Bullets, Custom animation, Multimedia, Presentation graphics program, Slide, Transition, Views

CAREER and TECHNICAL SKILLS What the Student Should be Able to Do		ACADEMIC and WORKPLACE SKILLS What the Instruction Should Reinforce			
Knowledge	Application	Skill Group	Skill	Description	
6.1 Explain presentation software and elements of an effective presentation	6.1.1 List the advantages of using visuals in a presentation	Foundation	Listening	Comprehends ideas and concepts related to presentation software [1.2.1]	
			Reading	Analyzes and applies what has been read to a specific task [1.3.2]	
6.2 Identify common features of presentation software	6.2.1 Create an electronic presentation using available software	Foundation	Reading	Analyzes and applies what has been read to a specific task [1.3.2]	
	6.2.2 Display/Explain presentation to peers	Thinking	Writing	Adapts notes to a proper form [1.6.1]  Checks, edits, and revises document for correct information, appropriate emphasis, form, grammar, spelling, and punctuation [1.6.5]	
			Creative Thinking	Uses imagination to create something new [4.1.1]  Develops visual aids to create audience interest [4.1.4]	
			Reasoning	Sees relationship between two or more ideas, objects, or situations [4.5.5]	

## Unit 7: Web Design

### Hours: 5

Terminology: Background, Body, E-mail link, Font, Head, Headings, Home page, Hyperlink, Images, Link, List, Publish, Table, Title, Web page, Web server

<b>CAREER and TECHNICAL SKILLS</b>		<b>ACADEMIC and WORKPLACE SKILLS</b>			
What the Student Should be Able to Do		What the Instruction Should Reinforce			
Knowledge	Application	Skill Group	Skill	Description	
7.1 Discuss the use and purpose of Web pages	7.1.1 Assess and explore available Web pages	Foundation	Listening	Comprehends ideas and concepts related to browsers [1.2.1]	
	7.1.2 Research Web page uses		Reading	Determines what information is needed [1.3.10]  Distinguishes between fact and opinion [1.3.11]	
7.2 Explain Web pages	7.2.1 Plan a Web page	Foundation	Reasoning	Sees relationship between two or more ideas, objects, or situations [4.5.5]	
	7.2.2 Create/Save a Web page		Thinking	Listening	Listens to and follows directions [1.2.6]
	7.2.3 Add headings, bold and italicized text, lists, hyperlinks, graphics, and background	Writing		Applies/Uses technical words and concepts [1.6.4]	
	7.2.4 Retrieve, edit, format, and print a Web page document	Creative Thinking	Uses imagination to create something new [4.1.1]  Combines ideas and information in a new way [4.1.2]		

## Unit 8: Safety and Tools

### Hours: 5

Terminology: Antistatic brush, Antistatic pad, Antistatic wrist strap, Cable tester, Electricity, Flat screwdriver, Nut driver, Phillips screwdriver, Punch-down tool, RJ45 crimper, Tape measure, Three-prong holder, Tweezers

<b>CAREER and TECHNICAL SKILLS</b>		<b>ACADEMIC and WORKPLACE SKILLS</b>			
What the Student Should be Able to Do		What the Instruction Should Reinforce			
Knowledge	Application	Skill Group	Skill	Description	
8.1 Discuss general safety rules that apply to the ITF lab	8.1.1 Demonstrate knowledge of general safety rules	Foundation	Listening	Comprehends ideas and concepts related to general safety rules [1.2.1]	
		Thinking	Decision Making	Evaluates information/data to make the best decision [4.2.5]	
8.2 Identify hand tools commonly used on PC repair and maintenance	8.2.1 Demonstrate knowledge and use of hand tools commonly used in PC repair and maintenance	Thinking	Reasoning	Comprehends ideas and concepts related to tool use [4.5.2]	

## Unit 9: Peripheral Devices

### Hours: 5

Terminology: Digital camera, Digital pen, Floppy disk drive, Hard disk drive, Hardware, Input, Input device, Keyboard, Modem, Monitor, Mouse, Optical storage device, Output, Output device, Peripheral, Plug & play, Pointer, Printer, Removable storage, Scanner, Storage, Voice recognition

<b>CAREER and TECHNICAL SKILLS</b>		<b>ACADEMIC and WORKPLACE SKILLS</b>			
What the Student Should be Able to Do		What the Instruction Should Reinforce			
Knowledge	Application	Skill Group	Skill	Description	
9.1 Identify the input devices	9.1.1 Demonstrate knowledge of the appearance of input devices	Foundation	Listening	Comprehends ideas and concepts related to input devices and uses [1.2.1]	
	9.1.2 Create a list of input devices and their functions		Speaking	Communicates a thought, idea, or fact in spoken form [1.3.16]	
9.2 Describe the output devices	9.2.1 Demonstrate knowledge of the appearance of output devices	Foundation	Listening	Comprehends ideas and concepts related to output devices and uses [1.2.1]	
	9.2.2 Create a list of output devices and their functions		Speaking	Communicates a thought, idea, or fact in spoken form [1.3.16]	
9.3 Discuss the storage devices	9.3.1 Demonstrate knowledge of the appearance of storage devices	Foundation	Listening	Comprehends ideas and concepts related to storage devices and media [1.2.1]	
	9.3.2 Create a list of storage devices		Speaking	Communicates a thought, idea, or fact in spoken form [1.3.16]	
	9.3.3 Compare the advantages of certain storage devices	Thinking	Reasoning	Comprehends ideas and concepts related to storage use [4.5.2]	

## Unit 10: System Components

### Hours: 7

**Terminology:** Adapters, American Standard Code for Information Interchange (ASCII), Arithmetic/Logic Unit (ALU), Basic input/output system, Bit, Byte, Cache memory, Central Processing Unit (CPU), Control unit, Controller, Execution cycle, Expansion slots, Instruction cycle, Integrated components, Main memory, Memory, Motherboard, Parallel port, Random Access Memory (RAM), Read-Only Memory (ROM), Ribbon cable, Serial port, Universal Serial Bus (USB)

CAREER and TECHNICAL SKILLS What the Student Should be Able to Do		ACADEMIC and WORKPLACE SKILLS What the Instruction Should Reinforce			
Knowledge	Application	Skill Group	Skill	Description	
10.1 Explain system component functions	10.1.1 Describe functions of various components	Foundation	Listening	Comprehends ideas and concepts related to system components [1.2.1]	
			Reading	Applies/Understands technical words that pertain to system components [1.3.6]	
10.2 Examine system components	10.2.1 Identify and label system components	Foundation	Listening	Listens to and follows directions [1.2.6]	
	10.2.2 Identify connections to system components	Thinking	Reasoning	Sees relationship between two or more ideas, objects, or situations [4.5.5]	
10.3 Discuss removal and replacement of system components	10.3.1 Demonstrate removal of one or more system components	Foundation	Listening	Listens to and follows directions [1.2.6]	
	10.3.2 Demonstrate reassembly of one or more system components		Science	Uses equipment and techniques to reassemble system components [1.4.23]	
	10.3.3 Determine reassembly success		Writing	Analyzes data, summarizes results, and makes conclusions [1.6.2]	
10.4 Explain driver software	10.4.1 Cite examples of driver software	Foundation	Listening	Applies/Understands technical words that pertain to driver software [1.3.6]	
	10.4.2 Locate driver software from appropriate sources, and download	Thinking	Knowing how to Learn	Applies new knowledge and skills to locate and download driver software [4.3.1]	
10.5 Explain steps to assemble a computer	10.5.1 Demonstrate ability to dismantle and assemble a computer	Foundation	Science	Uses equipment and techniques to assemble the computer [1.4.23]	
		Interpersonal	Teamwork	Works effectively with others to reach a common goal [2.6.6]	

## Unit 11: Networking

### Hours: 5

**Terminology:** Bandwidth, Bluetooth, Broadband, Cable modem, Client, Client/server network, Coaxial cable, Communications, Communications device, Dedicated line, Dial-up line, Digital Subscriber Line (DSL), DSL modem, 802.11, Ethernet, Fiber-optic cable, Home network, Infrared Data Association (IrDA), Local Area Network (LAN), Network, Network card, Network topology, Noise, Patch cable, Server, Token ring, Transmission Control Protocol/Internet Protocol (TCP/IP), Transmission media, Twisted-pair cable, Wide Area Network (WAN), Wireless LAN

<b>CAREER and TECHNICAL SKILLS</b>		<b>ACADEMIC and WORKPLACE SKILLS</b>		
What the Student Should be Able to Do		What the Instruction Should Reinforce		
Knowledge	Application	Skill Group	Skill	Description
11.1 Identify components for home network	11.1.1 Demonstrate how to set up Internet access through dial-up, cable, and DSL	Foundation	Speaking	Communicates a thought, idea, or fact in spoken form [1.5.5]
	11.1.2 List the items necessary to install wireless Internet access	Thinking	Reasoning	Sees relationship between two or more ideas, objects, or situations [4.5.5]
11.2 Discuss methods to share files and printers	11.2.1 Explain the process to enable file and printer sharing	Foundation	Writing	Communicates thoughts, ideas, or facts in written form in a clear concise manner [1.6.6]
		Thinking	Seeing Things in the Mind's Eye	Organizes and processes images, symbols, pictures, graphs, objects [4.6.2]

# Glossary

## Unit 1: Computer Software

1. Application software – a program that performs a specific task for users (examples include word processing)
2. Bit – smallest unit of data a computer can process; short for binary digit
3. Boot – the process of starting or restarting a computer
4. Byte – eight bits that are grouped together as a unit, representing one character
5. Cold boot – the process of turning on a computer that has been powered off completely
6. Cursor – a marker that can be moved about the screen using a pointing device to indicate where input will appear
7. Delete – removing text or other content from a document
8. Desktop – onscreen work area that has a graphical user interface (GUI)
9. Directory – a logical location created by the user to store files; also known as *folder*
10. File – named collection of stored data, instructions, information, or programs
11. Filename – unique combination of letters of the alphabet, numbers, or other characters that identifies a file
12. Folder – a logical location created by the user to store files; also known as *directory*
13. Icon – a small image that displays on the screen to represent a program, document, or some other object
14. Log-on – to access a computer or network as a user
15. Menu – the location on the screen where the commands used will be displayed
16. Operating system – a set of programs containing instructions that coordinate all the activities among computer hardware resources
17. Password – a private combination of characters, associated with a user name, that allows access to certain computer resources
18. Save – to transfer a document from a computer's memory to a storage medium
19. User – anyone who communicates with a computer, utilizes the information it generates, or for whom the system is being built
20. User ID – a unique combination of characters, such as letters of the alphabet or numbers, that identifies one specific user

21. Utility software – performs a specific task, usually related to managing a computer, its devices, or its programs (examples include antivirus, disk defragmenter, spam removal)
22. Warm boot – the process of restarting a computer that is already powered on
23. Window – the rectangular area of the screen used to display a program, data, or other information

## Unit 2: Word Processing

1. Clip art – a collection of drawings, diagrams, maps, and photographs that a user can insert into documents
2. Clipboard – temporary storage location for document content that is used in cutting and pasting or copying and pasting operation
3. Copy – make a duplicate of a file or data
4. Cursor – symbol on a computer screen, usually a blinking vertical bar, that indicates where the next character a user types will display
5. Cut – to remove text or graphics from a document and place it on the clipboard
6. Default – the initial setting unless another setting has been chosen
7. Editing – to make changes to the existing content of a document
8. File – named collection of stored data, instructions, information, or programs
9. Formatting – changing a document's appearance (font size, spacing, indentions, margins, etc.)
10. Grammar check – checks documents for grammatical errors, and offers suggestions on how to reword the sentence
11. Graphics – nontext information or images, such as graphs, charts, lines, drawings, photographs
12. Paste – to place text or graphics from the clipboard into a document
13. Print – to send a copy of a document from the computer to a printer to create a hard copy
14. Print preview – allows the document to be viewed in a full-page format to check the layout prior to printing
15. Save – to transfer a document from a computer's memory to a storage medium
16. Save as – the process of naming a new document and specifying the storage location
17. Spell checker – reviews the spelling of a document, and offers suggestions for misspelled words
18. Thesaurus – assists with using different words in a document by suggesting synonyms
19. Word processing – allows the user to create and manipulate documents containing mostly text and, sometimes, graphics
20. Word wrap – a feature that automatically wraps text to the next line

## Unit 3: Spreadsheet

1. Active cell – highlighted worksheet cell ready for data entry
2. Cell – intersection of a column and a row in a worksheet
3. Cell address – identifies a worksheet cell by the column letter and row number (for example, A1, B2, C4)
4. Charts – depict data in a graphical form within a spreadsheet
5. Column – appears vertically in a worksheet, and is identified by letters at the top of the worksheet window
6. Formula – expression used to perform calculations on the data in a worksheet and display the resulting value in a cell
7. Formula bar – displays a formula when the cell of a worksheet contains a calculated value
8. Function – predefined worksheet formula that performs common calculations
9. Graphics – digital representation of nontext information such as a drawing, chart, or photograph
10. Label – text entered in a worksheet cell
11. Row – appears horizontally in a worksheet, and is identified by numbers on the left side of the worksheet window
12. Sort – arrange a list of words or numbers in ascending (A-Z, smallest to largest) or descending (Z-A, largest to smallest) order
13. Spreadsheet – application software that allows a user to organize data in rows and columns and to perform calculations on the data
14. Value – number contained in a worksheet cell that is used in a calculation

## Unit 4: Database

1. Database – a collection of data organized in a manner that allows a user to access, retrieve, and use the data
2. Field – a category or individual piece of data that makes up a record
3. Form – a window on the screen that provides areas for entering or changing data in a database
4. Query – request for specific data from a database
5. Record – a group of related fields in a database, containing data about a given person, product, object, or event
6. Report – a collection of database information that helps to organize, summarize, or print all or a portion of the data
8. Table – an arrangement of data in rows and columns

## Unit 5: Internet

1. Acceptable use policy – an organization's policy that outlines the computer activities for which a computer and network may and may not be used
2. Address bar – displays address or URL of whose contents are being displayed
3. Address book – a list of names and e-mail addresses created and stored by a user
4. Attachment – a separate digital file that accompanies an e-mail and may be downloaded by the recipient
5. Bookmark/favorite – a stored Web page address (URL) that can be accessed easily by clicking an icon in a menu or special location
6. Boolean logic – using search methods, such as true/false or yes/no criteria
7. Browser – application software that allows users to access and view Web pages
8. Cookies – small text files that a Web server stores on a user's computer, which are used by e-commerce and other Web applications to identify the user and customize Web pages
9. Domain name – text version of an IP address; information that follows the @ symbol in an e-mail address; identifies the network, server, or service provider
10. Download – to receive information in a computer from another user, computer, or network
11. E-mail – short for *electronic mail*; the transmission of messages and files via a computer network
12. Hits – Web page names displayed by a search engine that contain the search text specified by a user
13. Home page – first page that a Web site displays
14. Hyperlink – built-in connection to another related Web page or part of a Web page
15. Hypertext Markup Language (HTML) – special formatting language that programmers use to format documents for display on the Web
16. Internet Service Provider (ISP) – a regional or national provider of access to the Internet
17. Keywords – words or phrases entered in a search engine's text box to find a Web page
18. Protocol – standard format for transferring data between two devices; TCP/IP is the agreed-upon international standard for transmitting data
19. Search engine – software program that finds Web sites and Web pages
20. Subscribe – process of a user adding his or her e-mail name and address to a mailing list or newsgroup

21. Toolbar – displays buttons you can click to quickly choose a command
22. Uniform Resource Locator (URL) – unique address for a Web page; also called a Web address
23. User – person using a computer or network
24. User name – also called *user ID*; a unique combination of characters that identifies one specific user
25. Web site – a collection of related Web pages and associated items, such as documents and pictures, stored on a Web server
26. Wildcard character – a special character that represents a character or string of characters while using a search
27. World Wide Web (WWW) – worldwide collection of electronic documents

## Unit 6: Presentation

1. Animation – appearance of motion created by displaying a series of still images in rapid sequence
2. Audience handouts – a presentation that is printed in condensed form to give to the audience
3. Bullets – a character added to the beginning of a paragraph in a presentation to create a list item
4. Custom animation – changing preset effects of a presentation to create animation sequences of your own
5. Multimedia – any application that integrates text with one or more of the following elements: graphics, sound, video, virtual reality, or other media elements
6. Presentation graphics (software) program – software used to create presentations, which are used to communicate ideas, messages, and other information to a group
7. Slide – a single window pane that is a workbench (design pane) for a presentation
8. Transition – changing the manner in which text, graphics, or an entire slide appears on the screen in sequence
9. Views – the different manner in which one can look at a presentation

## Unit 7: Web Design

1. Background – an image or color that makes up the backdrop for a Web page
2. Body – `<body>` html tag that designates the part of the Web page that contains informational content about the site; can be in the form of text, graphics, animation, video, and audio
3. E-mail link – a hyperlink that creates a blank e-mail message containing the recipient's address
4. Font – name given to a specific design of characters
5. Head – `<head>` html tag that creates a header for a Web page; used to place the title of a Web page
6. Headings – `<h1>` through `<h6>` are html codes that range from largest `<h1>` through smallest `<h6>` and are used to set a part document or section titles
7. Home page (index page) – typically the first page displayed on a web site that provides information about the Web site's purpose and content
8. Hyperlink – a built-in connection to another related Web page or part of a Web page
9. Images – clip art, graphics, photos, drawings, charts, and other elements added to a Web site; images can be used in addition to or in place of text as a hyperlink
10. Link – another term for a *hyperlink*
11. List – a means of grouping and organizing data on a Web page
12. Publish – the process of making a Web site available to be viewed by visitors
13. Table – a layout of rows, columns, and cells that provides Web designers with a method to organize and add vertical and horizontal structure to a page
14. Title – `<title>` places a title for a Web page in the title bar of the Web browser
15. Web page – an electronic document on the Web; may be a single document or part of a collection of pages that make up a Web site
16. Web server – a computer that hosts and delivers requested Web pages

## Unit 8: Safety and Tools

1. Antistatic brush – brush used to discharge static electricity
2. Antistatic pad – used to prevent electrostatic discharge in the computer
3. Antistatic wrist strap – used to discharge static electricity from your body
4. Cable tester – used to test cables and their connections
5. Electricity – a phenomenon associated with stationary or moving electric charges
6. Flat screwdriver – used to remove and install standard screws
7. Nut driver – used to remove and install hex head screws
8. Phillips screwdriver – used to remove and install Phillips head screws
9. Punch-down tool – used to punch down cat5 in 10 blocks and patch panels
10. RJ45 crimper – used to crimp RJ45 connectors to cat5 cable
11. Tape measure – used to measure cable lengths and distances
12. Three-prong holder – used to pick up and hold small parts
13. Tweezers – used to pick up and hold small parts

## Unit 9: Peripheral Devices

1. Digital camera – a camera that stores its photographed images digitally instead of on traditional film
2. Digital pen – an input device that allows users to write on the screen or issue instructions to a tablet PC
3. Floppy disk drive – a device that can read from and write on a floppy disk
4. Hard disk drive – a type of storage device that contains one or more inflexible, circular platters that store data, instructions, and information
5. Hardware – electric, electronic, and mechanical components contained in a computer
6. Input – any data or instructions that are entered into the memory of a computer
7. Input device – any hardware component that allows users to enter data or instructions into a computer
8. Keyboard – an input device that contains keys users press to enter data into a computer
9. Modem – a type of communications device that either converts a computer's signals into analog signals so the signals can be transmitted over standard telephone lines or converts the analog signals back into digital signals that a computer can process
10. Monitor – a plastic or metal case that houses a display device as a separate peripheral
11. Mouse – a pointing device that fits comfortably under the palm of a user's hand
12. Optical storage device – a type of optical storage that uses laser technology to store data, instructions, and information
13. Output – data that has been processed into a useful form
14. Output device – a hardware component that conveys information to one or more people
15. Peripheral – a device that connects to a system unit and is controlled by the processor in a computer
16. Plug & play – the ability of a computer to configure new devices automatically as a user installs them
17. Pointer – a small symbol, displayed on a computer screen, whose location and shape changes as a user moves a pointing device
18. Printer – an output device that produces text and graphics on a physical medium, such as paper or transparency film
19. Removable storage – storage media that can be inserted and removed from the computer
20. Scanner – a light-sensing input device that reads printed text and graphics and then translates the results into a form the computer can process

21. Storage – location in which data, instructions, and information are held for future use
22. Voice recognition – a computer's capacity to distinguish spoken words

## Unit 10: System Components

1. Adapters – devices that allow connections to peripherals on a computer
2. American Standard Code for Information Interchange (ASCII) – the most widely used coding scheme to represent data
3. Arithmetic/Logic Unit (ALU) – component of a processor that performs arithmetic, comparison, and logical operations
4. Basic input/output system – firmware on ROM chip(s) that contain a computer's start-up instructions
5. Bit – the smallest unit of data a computer can process; bit is short for *binary digit*
6. Byte – eight bits that are grouped together as a unit; a byte provides enough different combinations of 0's and 1's to represent 256 individual characters
7. Cache memory – an area of memory that stores the contents of frequently accessed data or instructions
8. Central Processing Unit (CPU) – the electronic component on a computer's motherboard that interprets and carries out the basic instructions that operate the computer
9. Control unit – the component of a processor that directs and coordinates most of the operations in a computer
10. Controller – a management device that measures the performance of a computer and, if necessary, takes corrective action
11. Execution cycle – the process of a computer carrying out the instructions in a program
12. Expansion slots – sockets on a motherboard that can hold an adapter card
13. Instruction cycle – the process and steps that tell a computer how to perform a particular task
14. Integrated components – components, such as video, audio, and networking capabilities, soldered directly onto the motherboard
15. Main memory – a type of memory that can be read from and written to by the processor and other devices; also known as *random access memory*
16. Memory – electronic components in a computer that store instructions waiting to be executed by the processor, the data needed by those instructions, and the results of the processed data (information)
17. Motherboard – the main circuit board of the system unit, which has some electronic components attached to it and others built into it
18. Parallel port – a type of interface for connecting a device to the system unit that can transfer more than one bit at a time
19. Random Access Memory (RAM) – a type of memory that can be read from and written to by the processor and other devices; also known as *main memory*

20. Read-Only Memory (ROM) – a type of memory that is used to store permanent data and instructions, because it is a nonvolatile memory
21. Ribbon cable – a cable with many conducting wires running parallel to each other that connects drives to the drive controller
22. Serial port – a type of interface for connecting a device to the system unit that can transmit only one bit at a time
23. Universal Serial Bus (USB) – a port that can connect up to 127 different peripherals with a single connector type

## Unit 11: Networking

1. Bandwidth – the amount of data, instructions, and information that can travel over a communications channel
2. Bluetooth – network standard, specifically a protocol, that defines how two Bluetooth devices use short-range radio waves to transmit data
3. Broadband – a type of media that transmits multiple signals simultaneously
4. Cable modem – a digital modem that sends and receives digital data over the cable television (CATV) network
5. Client – a computer on a network that requests resources from the server
6. Client/server network – a network in which one or more computers act as a server and the other computers on the network request services from the server
7. Coaxial cable – a single copper wire surrounded by at least three layers – insulating material, woven metal, and plastic outer coating
8. Communications – the process in which two or more computers or devices transfer data, instructions, and information
9. Communications device – any type of hardware capable of transmitting data, instructions, and information between a sending device and a receiving device
10. Dedicated line – a type of always-on connection that is established between two communications devices
11. Dial-up line – a temporary connection that uses one or more analog telephone lines for communications
12. Digital Subscriber Line (DSL) – a type of digital technology that provides high-speed Internet connections using regular copper telephone lines
13. DSL modem – a modem that sends digital data and information from a computer to a DSL line and receives digital data and information from a DSL line
14. 802.11 – a series of network standards that specifies how two wireless devices communicate over the air with each other
15. Ethernet – a network standard that specifies no central computer or device on the network should control when data can be transmitted
16. Fiber-optic cable – dozens or hundreds of thin strands of glass or plastic that use light to transmit signals
17. Home network – a network consisting of multiple devices and computers connected together in a home
18. Infrared Data Association (IrDA) – a network standard used to transmit data wirelessly via infrared (IR) light waves
19. Local Area Network (LAN) – a network that connects computers and devices in a limited geographical area, such as a home, school computer lab, office building, or closely positioned group of buildings
20. Network – a collection of computers and devices connected via communications devices and transmission media, allowing computers to share resources

21. Network card – an adapter card, PC card, or flash card that enables the computer or device to access a network
22. Network topology – layout of computers and devices in a communications network
23. Noise – electrical disturbance that can degrade communications
24. Patch cable – the common name for any network cable that is used to connect, or "patch," any two network ports
25. Server – a computer that controls access to the hardware, software, and other resources on a network and provides a centralized storage area for programs, data, and information
26. Token ring – a network standard in which computers and devices on the network share or pass a special signal called a *token* in a unidirectional manner and in a preset order
27. Transmission Control Protocol/Internet Protocol (TCP/IP) – a network standard, specifically a protocol, that defines how messages (data) are routed from one end of a network to the other, ensuring the data arrives correctly
28. Transmission media – materials or substances capable of carrying one or more signals in a communications channel
29. Twisted-pair cable – a transmission cable that consists of one or more twisted-pair wires bundled together
30. Wide Area Network (WAN) – a network that covers a large geographic area (such as a city, country, or the world) using a communications channel that combines many types of media, such as telephone lines, cables, and radio waves
31. Wireless LAN – a local area network that uses no physical wires