FBLA: INTRODUCTION TO TECHNOLOGY CONCEPTS

Competency: Basic Computer Principles
Tasks
1. Identify the basic parts of a computer system and describe the functions and relationships among components.
2. State the purpose of an operating system and describe the difference between an operating system and application software.
3. Explain operating system software and cite examples of different operating systems including DOS, Windows, and Macintosh.
4. Use system utilities and explain system utility software and cite examples.
5. Identify file formats and extensions.
6. Recognize file sizes in terms of kilobytes, megabytes, and gigabytes.
7. Create a folder/directory, format, move, copy, delete, and rename files and folders.
8. Select and utilize the appropriate technology to solve a problem or complete a task.
9. Identify how computers share data, files, hardware, and software (e.g., networking).
10. Identify how hardware and software work together to perform computing tasks and how software is developed and upgraded.
11. Identify resources to obtain assistance (e.g., HELP menu, software manual, and Web site) and demonstrate basic diagnostic skills.
12. Demonstrate how to change system settings, install, upgrade, and remove software.
13. Describe the impact of information technology on business and society and the relationships among technologies.
14. Describe the cultural, social, economic, political, and environmental effects of technology (e.g., rapid or gradual change, trade-offs and effects, and ethical implications).
Competency: Terminology
Tasks
1. Define and discuss the core concepts of technology (e.g., systems, resources, requirements, optimization and trade-offs, processes, and controls).
2. Identify terminology associated with new and emerging on-screen writing technologies (e.g., electronic whiteboard, graphics tablet, and tablet PC).
3. Define spreadsheet terminology (e.g., cell, row, column, range, label, value, formula, function, worksheet, relative, absolute, and legend.)
4. Define database terminology.
5. Identify terminology associated with new and emerging PDA technologies.
6. Explain the difference between memory and storage including RAM, ROM, and other storage devices.
7. Describe the differences between analog and digital technology.
8. Describe the concept of TCP/IP and the Domain Name System (DNS).

Competency: Computer Application Concepts
Tasks
1. Discuss different types of software, general concepts related to software categories, and the tasks to which each type of software is most suited or not suited.
2. Demonstrate file management skills and perform basic software configuration operations (e.g., install new software, compress and expand files as needed, and download files as appropriate).
3. Explain driver software and locate driver software from appropriate sources and download.
4. Identify network applications (e.g., fax, voice mail, online services, and e-mail).
5. Explain the purpose, function, and common features of commonly used word processing programs.
6. Design, create, retrieve, proofread, edit, and save workplace documents using word processing software.
7. Explain the purpose, function, and features of commonly used spreadsheets.
8. Design, create, and use spreadsheets for workplace applications.
9. Explain the purpose, function, and features of commonly used databases.
10. Design, create, manage, and use databases.
11. Identify common features of presentation software.
12. Create presentations using software application.
13. Demonstrate ability to navigate the Internet using a variety of search engines to conduct research.
14. Use OCR software to manipulate, convert, save, and insert an image or text into a document.
15. Use basic techniques of speech recognition (e.g., open, close software applications, navigate a document, and integrate text).
16. Complete workplace applications that integrate word processing, spreadsheet, database, and multimedia software.
17. Discuss how electronic mail works and use e-mail to send and receive messages and attachments.
18. Produce documents integrating and manipulating graphic files and multimedia with other application software.
19. Produce documents integrating sound files with other application software if technology is available.
20. Operate PDAs/handheld devices (e.g., open applications, synchronize, use stylus to navigate, write messages, and create address book of contacts).
21. Research applications for new and emerging technologies (e.g., on-screen writing, speech recognition, cell phones, PDA's, scanning, voice mail, digital imaging, touch screens, voice output, and biometrics).
22. Identify common editing, formatting, and printing functions.
23. Demonstrate the use of telecommunications and other media to interact or collaborate with peers, experts, and other audiences.
24. Explain purpose of GPS and utilize GPS technology.

Competency: Computer Equipment
Tasks
1. Describe the characteristics and functions of CPUs, motherboards, random access memory (RAM), expansion connections floppy drives, hard drives, and CD-ROM drives.
2. Explain the functions and characteristics of system expansion devices (e.g., graphics cards, sound cards, and modems).
3. Demonstrate the use of connectivity devices and peripheral equipment (e.g., portable storage devices, printers, cable modem, and wireless technologies).
4. Investigate basic issues affecting system purchase and upgrade decisions.
5. Compare categories of computers based on their size, power, and purpose.
6. Identify the various types of computer storage devices and compare the advantages and disadvantages of certain storage devices.
7. Install and configure hardware in a computer system.
8. Create a list of output devices and their functions and install, configure, and test various output devices.
9. Identify and demonstrate resolutions to simple hardware and software problems as they occur (e.g., frozen screen, disk error, and printing problems).
10. Differentiate between a software and a hardware problem.
11. Compare different options of backing up and securing data and restoring a system.
12. Practice proper handling procedures for components including assembling and dismantling a computer.
13. Clean and perform routine maintenance on computer systems.
14. Evaluate the performance of core computer systems components (e.g., RAM, CMOS settings, CPUs).
15. Create and use a list of input devices and their functions.
Competency: Programming Basic Concepts (structure, logic)
Tasks
1. Explain the purpose and functions of computer programming.
2. Define programming structures.
3. Define purpose and use of flowcharting.
4. Identify the types of programming languages.
5. Explain the steps in a program life cycle.
6. Design and create a simple program for a specific application.
7. Test and debug the program.
8. Document the program.

Competency: Safety and Security	
Tasks	
1.	Define the various virus types, potential sources, and their potential effects.
2.	Identify basic security risks and issues to computer hardware, software, and data and options in dealing with virus attacks.
3.	Explain the consequences of illegal, social, and unethical uses of information technologies (e.g., piracy, illegal downloading, licensing infringement, inappropriate uses of software, hardware, and mobile devices).
4.	Define E-Mail and Instant Messaging protocol and identify netiquette including the use of e-mail, social networking, blogs, texting, and chatting.
5.	Explain the benefits and demonstrate the use of privacy, password, and protection utilities.
6.	Demonstrate appropriate legal and responsible electronic communications and Internet use for business (e.g., includes copyright, netiquette, privacy issues, and ethics).

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