

<u>Computer Technology II</u>

Unit 1 - Technology Operations and Concepts

I can:

- Explore various computers available in current technology.
- Identify and understand components and peripherals, including input-output devices: cameras, printers, scanners, game-controllers, etc.
- Explore and demonstrate knowledge of how to maintain computer equipment and solve common hardware problems.
- Use software tools for creating, finding, organizing, and communicating information.
- Popular software: word processing, spreadsheets, presentation software, databases, graphic and multimedia programs, etc.
- Transfer knowledge of how software and hardware work together to perform computing tasks
- (Information Processing Cycle: Input, Output, Processing, Storage, Communication)
- Understand software types and be able to access updates.
- Select and/or use the following effectively and productively: windows, folders, files and shortcuts; install, uninstall and run various applications; solve common problems.
- Critically discuss and select operating systems and capabilities.
- Use an operating system to manipulate a computer's desktop, files and disks.
- Identify how to change system settings, install and remove software.
- Describe the different roles and rights of users on a computer.
- Identify the different purposes and power states of an operating system.
- Manage (create, delete, move, duplicate, etc.) computer files.
- Understand directories, file extensions, and associations.

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Unit 2 - (Productivity Applications) - Spreadsheets, Word Documents, I can: Presentation Software, Database

- Start and exit an application, identify and modify interface elements.
- Assess and use sources of online help.
- Create new blank files and files from templates.
- Learn and perform common editing, formatting, and personalization functions.
- Learn and perform common printing/outputting functions.
- Search effectively in a data file.
- Change views within a data file.
- Use and manipulate multimedia files in a file (e.g. rotate, crop, resize, insert, and delete).

-Presentation Software (PowerPoint)

I can:

- Insert and modify text, tables, multimedia, charts, and shapes on a slide.
- Add, remove, and modify the order of slides.
- Change the layout of slides
- Add and modify animations and transitions.
- Understand the changing history of presentation software and its place in the
- modern workplace and academic setting.

• Design, manage, modify and present presentations for a variety of audiences and purposes. -Spreadsheets (Excel) I can:

- Modify, organize and manage worksheet data, structure and formatting (e.g.
- budgets, statistics, inventory).
- Modify cells, columns, and rows (e.g. insert, delete, adjust the width/height, change alignment, locate, merge and unmerge cells).
- Sort, calculate and manipulate data using formulas and functions and create/build simple, effective charts.
- Apply knowledge of spreadsheets to create and modify charts and graphs.

-Word Processing (Word)

I can:

- Be able to effectively create and format text and documents (Use automatic formatting tools).
- Be able to use word-processing tools to automate processes: document review, security, collaboration.
- Use and modify tables and different lists.
- Use and modify page layout options (e.g. numbering, columns, margins, and
- alignment of text in paragraphs and tables, tabs and rulers, and orientation).

-Database (Access)

I can:

- Create and run basic reports.
- Use and modify a basic query.
- Add, delete, and modify data in a database.
- Unit 3 Communication Networks, Internet, and Digital Citizenship

I can:

- Use computers as powerful tools for finding, sharing, and storing information around the globe.
- Explore the risks of computing and study the negative impacts on society.
- Advocate and practice safe, legal, and responsible use of information and technology
- Identify the differences between the Internet, World Wide Web, and browsers.
- Classify domains, hyperlinks, homepages, favorites/bookmarks, plugins, tabs, browser history, and downloads/uploads.
- Understand and evaluate different networks and how they transmit different types of data.
- Understand and identify the roles of clients and servers in a network
- Understand the fundamental principles of security in regards to networks.
- Demonstrate an understanding of network speeds, wireless communication, firewalls, and gateways.
- Define PSNs, DNSs, IP addresses, LANs, WANs, and VPNs.
- Solve connectivity and common network problems.
- Categorize the difference between personal and professional communication.
- Define and explain spamming, flaming, cyber-bullying, libel, and slander.
- Define and describe censorship, filtering, intellectual property, piracy, copyright, licensing, and creative commons.

Unit 4 - Electronic Communication and Collaboration

I can:

- Interact with and identify different types of electronic communication/collaboration: email, cell phones, blogs, teleconferencing, social networks, email and other electronic devices/tools.
- Demonstrate responsibility in choosing the appropriate means of communication for a given situation and audience.
- Understand common problems and challenges with electronic communication. (e.g., delivery failure, junk mail, fraud, viruses, etc.).
- Use effective search terms in a search engine to get specific information from reputable sources.
- Evaluate information from forums, knowledge bases, and articles.
- Determine the validity of information.
- Use advanced features of a search engine to filter information by file, media, category, and size.

- Analyze and discuss various societies' uses of computing (e.g., work, school, government, home and social interaction)
- Identify the risks of using computer hardware and software safely, ethically and legally.
- Explain how to protect identity online (e.g. personal firewalls, cookies, virus and spyware protection, updating programs, and operating systems).
- Investigate the purpose of ergonomics with monitors, computer mice, chair settings, lighting, and posture.

Unit 5 - Course Integration Project

• Use any or all of the following in a project to be presented to the Computer Technology teacher and a cross-curricular teacher: document processing, spreadsheet, electronic presentation.