





Unit/Standard Number	 <p style="margin: 0;">pennsylvania DEPARTMENT OF EDUCATION</p> <p style="margin: 0;"><u>High School Graduation Years 2017, 2018 and 2019</u></p> <p style="margin: 0;">Computer Technology/Computer System Technology CIP 15.1202 Task Grid</p>	<p>Proficiency Level Achieved: (X) Indicates Competency Achieved to Industry Proficiency Level</p>
	Secondary Competency Task List	
100	DEMONSTRATE KNOWLEDGE OF PERSONAL AND ENVIRONMENTAL SAFETY	
101	List common causes of accidents and injuries in a computer facility.	
102	Wear personal protective equipment, e.g. safety glasses, hearing protection, and respiratory protection, as needed.	
103	List and identify safety hazard symbols.	
104	Review Safety Data Sheets (SDS) and explain their requirements in handling hazardous materials.	
105	Describe types of fire extinguishers and explain which types to use for extinguishing various fires.	
106	Demonstrate safe procedures to follow when lifting and carrying heavy objects.	
107	Describe the importance of safety as it relates to environmental issues.	
108	Identify potential hazards when working with power supplies.	
109	Identify proper disposal procedures for batteries and display devices.	
110	Identify proper disposal procedures for chemical solvents and pressurized cans.	
111	Describe the meaning and importance of the Energy Star Rating System.	
112	Configure a computer's power management settings to maximize energy efficiency.	
113	Maintaining a safe work area to avoid common accidents and injuries.	
200	DEMONSTRATE KNOWLEDGE OF COMPUTING FUNDAMENTALS	
201	Identify the various types of computers people use in the modern world.	
202	Identify computer hardware components and their functions.	
203	Identify appropriate computer equipment and peripheral for given a specific situation and budget.	
204	Describe the interaction between software and hardware.	
205	Describe the difference between applications software and system software.	
206	Identify the functions of an operating system.	
207	Describe the various components of a graphical user interface based operating system.	
208	Demonstrate the ability to use a graphical user interface based operating system.	
300	USE PRODUCTIVITY SOFTWARE	
301	List and describe several common application software suites.	
302	RESERVED	
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305	RESERVED	
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400	DEMONSTRATE INTERNET APPLICATIONS	
401	Describe appropriate email etiquette.	
402	Send, receive and manage e-mail documents and attachments.	
403	Identify the source of an Internet document based on its URL.	
404	Describe common ethical issues with downloading legal and illegal documents software.	
405	Demonstrate how to use a web browser to effectively search the Internet and retrieve specified information.	
406	Describe common uses of cloud computing for at work, school, and home.	
500	DEMONSTRATE KNOWLEDGE OF COMPUTER HARDWARE	
501	Describe categorize storage devices and backup media.	
502	Explain the operation of a motherboard and its components, types and features.	
503	Categorize power supplies types and characteristics.	
504	Explain the purpose and characteristics of CPUs and their features.	
505	Explain cooling methods and devices.	
506	Compare and contrast memory types, characteristics and their purpose.	
507	Explain the characteristics of various monitors, and display devices.	
508	Install and configure peripherals and input devices.	
509	Explain the function and types of adapter cards.	
510	Install, configure and optimize laptop components and features.	
511	Given a scenario, install, configure and maintain the components of a desk top computer.	
512	Given a scenario, detect problems, troubleshoot, and repair/replace the components of a desk top computer.	
513	Given a scenario, diagnose and repair common printer issues.	
514	Calculate voltage, wattage, and capacity of power supply.	
515	Explain the purpose of CPU and case fans air flow directions	
600	DEMONSTRATE KNOWLEDGE OF TROUBLESHOOTING, REPAIR AND MAINTENANCE	

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601	Describe and explain the troubleshooting theory.	
602	Describe and explain and interpret common hardware and operating system symptoms and their causes.	
603	Describe and determine the troubleshooting methods and tools for printers.	
604	Describe and interpret common laptop issues and determine the appropriate basic troubleshooting method.	
605	Describe and apply common preventative maintenance techniques for computers.	
700	DEMONSTRATE KNOWLEDGE OF OPERATING SYSTEMS AND SOFTWARE	
701	Compare and contrast the different Operating Systems and their features.	
702	Given a scenario, demonstrate proper use of user interfaces.	
703	Explain the process and steps to install and configure an operating system.	
704	Explain the basics of boot sequences, methods and startup utilities.	
705	Select the appropriate commands and options to troubleshoot and resolve problems.	
706	Explain the difference between various operating system directory structures.	
707	Identify and use system utilities/tools and evaluate the results.	
708	Evaluate and resolve common OS (Operating System) and software issues.	
709	Explain and demonstrate knowledge of the Command Line interface.	
800	DEMONSTRATE KNOWLEDGE OF NETWORKING	
801	Describe common types of computer networks based on their scope of coverage	
802	Describe how computer networks, telephone networks and the Internet are related.	
803	Define networking fundamentals, technologies, devices and protocols.	
804	Describe, fabricate, and test network cables and connectors.	
805	Compare and contrast various types of wired and wireless networks.	
806	Demonstrate how to use the appropriate tools to troubleshoot problems of network connectivity.	
900	DEMONSTRATE KNOWLEDGE OF SECURITY	
901	Explain the ethical, legal and security issues related to handling data.	
902	Identify security features including wireless encryption, and malicious software protection.	
903	Identify security, password management, locking workstations, and biometrics.	
904	Troubleshoot, and remove and prevent viruses and malware.	
905	Implement security and troubleshoot common issues.	
906	Describe the ethical, security, and privacy issues involved in posting information about yourself and others on social networking sites, including blogs.	
1000	PROVIDING CUSTOMER SERVICE	

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1001	Demonstrate the use of effective communication with customers.	
1002	Demonstrate techniques to solve customer problems.	
1003	Utilize the team approach to deliver customer service.	