

Mapping to the CompTIA A+ Objectives

This appendix contains four charts that show where this book covers the CompTIA A+ objectives for each of the four exams. After you've read through the book the first time, these charts will help focus your studies on the exam you plan to take next. This is especially important for folks taking the Help Desk (220-603) or Depot Technician (220-604) exams because the objectives differ from those of the IT Technician (220-602). Good luck!

CompTIA A+ Essentials Objectives Map

Topic	Chapter(s)
Domain 1.0—Personal Computer Components	
1.1 Identify the fundamental principles of using personal computers	
Identify the names, purposes, and characteristics of storage devices	2, 9, 10, 11
Identify the names, purposes, and characteristics of motherboards	2, 3, 4, 5, 6, 7, 9
Identify the names, purposes, and characteristics of power supplies	8
Identify the names, purposes, and characteristics of processors/CPU	3
Identify the names, purposes, and characteristics of memory	4
Identify the names, purposes, and characteristics of display devices	2, 17
Identify the names, purposes, and characteristics of input devices	16, 18
Identify the names, purposes, and characteristics of adapter cards	9, 16, 17, 18
Identify the names, purposes, and characteristics of ports and cables	2, 18, 20
Identify the names, purposes, and characteristics of cooling systems	3, 8
1.2 Install, configure, optimize, and upgrade personal computer components	
Add, remove, and configure internal and external storage devices	9, 10
Install display devices	17
Add, remove, and configure basic input and multimedia devices	16

Topic	Chapter(s)
1.3 Identify tools, diagnostic procedures, and troubleshooting techniques for personal computer components	
Recognize the basic aspects of troubleshooting theory	24
Identify and apply basic diagnostic procedures and troubleshooting techniques	24
Recognize and isolate issues with display, power, basic input devices, storage, memory, thermal, and POST errors (e.g., BIOS, hardware)	3, 4, 5, 8, 9, 10, 16, 17
Apply basic troubleshooting techniques to check for problems (e.g., thermal issues, error codes, power, connections including cables and/or pins, compatibility, functionality, software/drivers) with components	3, 4, 6, 7, 8, 16, 17
Recognize the names, purposes, characteristics, and appropriate application of tools	5, 9
1.4 Perform preventive maintenance on personal computer components	
Identify and apply basic aspects of preventive maintenance theory	5, 6, 24
Identify and apply common preventive maintenance techniques for devices such as input devices and batteries	16, 19
Domain 2.0—Laptop and Portable Devices	
2.1 Identify the fundamental principles of using laptops and portable devices	
Identify names, purposes, and characteristics of laptop-specific form factors, peripherals, expansion slots, ports, communication connections, power and electrical input devices, LCD technologies, and input devices	19, 21
Identify and distinguish between mobile and desktop motherboards and processors including throttling, power management, and Wi-Fi	3, 19, 21
2.2 Install, configure, optimize, and upgrade laptops and portable devices	
Configure power management	19
Demonstrate safe removal of laptop-specific hardware such as peripherals, hot-swappable devices, and non-hot-swappable devices	19
2.3 Identify tools, basic diagnostic procedures, and troubleshooting techniques for laptops and portable devices	
Use procedures and techniques to diagnose power conditions, video, keyboard, pointer, and wireless card issues	19
2.4 Perform preventive maintenance on laptops and portable devices	
Identify and apply common preventive maintenance techniques for laptops and portable devices	19
Domain 3.0—Operating Systems	
3.1 Identify the fundamentals of using operating systems	
Identify differences between operating systems (e.g., Mac, Windows, Linux) and describe operating system revision levels including GUI, system requirements, and application and hardware compatibility	12
Identify names, purposes, and characteristics of the primary operating system components including registry, virtual memory, and file system	13

Topic	Chapter(s)
Describe features of operating system interfaces	13
Identify the names, locations, purposes, and characteristics of operating system files	13
Identify concepts and procedures for creating, viewing, and managing disks, directories, and files in operating systems	10, 13, 14
3.2 Install, configure, optimize, and upgrade operating systems	
Identify procedures for installing operating systems	12
Identify procedures for upgrading operating systems	12
Install/add a device including loading [and] adding device drivers and required software	6, 13
Identify procedures and utilities used to optimize operating systems	15
3.3 Identify tools, diagnostic procedures, and troubleshooting techniques for operating systems	
Identify basic boot sequences, methods, and utilities for recovering operating systems	15
Identify and apply diagnostic procedures and troubleshooting techniques	24
Recognize and resolve common operational issues such as bluescreen; system lock-up; input/output device; application install, start, or load; and Windows-specific printing problems (e.g., print spool stalled, incorrect/incompatible driver for print)	15, 20
Explain common error messages and codes	15, 23
Identify the names, locations, purposes, and characteristics of operating system utilities	5, 6, 10, 13, 14, 15
3.4 Perform preventive maintenance on operating systems	
Describe common utilities for performing preventive maintenance on operating systems	15
Domain 4.0—Printers and Scanners	
4.1 Identify the fundamental principles of using printers and scanners	
Identify differences between types of printer and scanner technologies	16, 20
Identify names, purposes, and characteristics of printer and scanner components	16, 20
Identify the names, purposes, and characteristics of interfaces used by printers and scanners including port and cable types	16, 20
4.2 Identify basic concepts of installing, configuring, optimizing, and upgrading printers and scanners	
Install and configure printers/scanners	16, 20
Optimize printer performance	20
4.3 Identify tools, basic diagnostic procedures, and troubleshooting techniques for printers and scanners	
Gather information about printer/scanner problems	16, 20
Review and analyze collected data	16, 20
Identify solutions to identified printer/scanner problems	16, 20

Topic	Chapter(s)
Domain 5.0—Networks	
5.1 Identify the fundamental principles of networks	
Describe basic networking concepts	21, 22
Identify names, purposes, and characteristics of the common network cables	21
Identify names, purposes, and characteristics of network connectors	21
Identify names, purposes, and characteristics (e.g., definition, speed, and connections) of technologies for establishing connectivity	21, 22
5.2 Install, configure, optimize, and upgrade networks	
Install and configure network cards (physical address)	21
Install, identify, and obtain wired and wireless connections	21
5.3 Identify tools, diagnostic procedures, and troubleshooting techniques for networks	
Explain status indicators, for example, speed, connection, activity lights, and wireless signal strength	21
Domain 6.0—Security	
6.1 Identify the fundamental principles of security	
Identify names, purposes, and characteristics of hardware and software security	23
Identify names, purposes, and characteristics of wireless security	23
Identify names, purposes, and characteristics of data and physical security	15, 23
Describe importance and process of incidence reporting	23
Recognize and respond appropriately to social engineering situations	23
6.2 Install, configure, upgrade, and optimize security	
Install, configure, upgrade, and optimize hardware, software, and data security	5, 23
6.3 Identify tools, diagnostic procedures, and troubleshooting techniques for security	
Diagnose and troubleshoot hardware, software, and data security issues	23
6.4 Perform preventive maintenance for computer security	
Implement software security preventive maintenance techniques such as installing Service Packs and patches and training users about malicious software prevention technologies	23
Domain 7.0—Safety and Environmental Issues	
7.1 Describe the aspects and importance of safety and environmental issues	
Identify potential safety hazards and take preventive action	8
Use Material Safety Data Sheets (MSDS) or equivalent documentation and appropriate equipment documentation	20
Use appropriate repair tools	8
Describe methods to handle environmental and human (e.g., electrical, chemical, physical) accidents including incident reporting	24

Topic	Chapter(s)
7.2 Identify potential hazards and implement proper safety procedures including ESD precautions and procedures, safe work environment, and equipment handling	2, 8
7.3 Identify proper disposal procedures for batteries, display devices, and chemical solvents and cans	17, 19, 23
Domain 8.0—Communication and Professionalism	
8.1 Use good communication skills, including listening and tact/discretion, when communicating with customers and colleagues	24
8.2 Use job-related professional behavior including notation of privacy, confidentiality, and respect for the customer and customer's property	24

CompTIA A+ 220-602 (IT Technician) Objectives Map

Topic	Chapter(s)
Domain 1.0—Personal Computer Components	
1.1 Install, configure, optimize, and upgrade personal computer components	
Add, remove, and configure personal computer components, including selection and installation of appropriate components	3, 4, 6, 7, 8, 9, 10, 16, 17
1.2 Identify tools, diagnostic procedures, and troubleshooting techniques for personal computer components	
Identify and apply basic diagnostic procedures and troubleshooting techniques	3, 4, 6, 7, 8, 9, 10, 17
Recognize and isolate issues with peripherals, multimedia, specialty input devices, internal and external storage, and CPUs	3, 9, 10, 16, 17, 18, 20
Identify the steps used to troubleshoot components (e.g., check proper seating, installation, appropriate components, settings, and current driver)	3, 4, 6, 7, 8, 16, 17
Recognize the names, purposes, characteristics, and appropriate application of tools	2, 8, 20, 22, 24
1.3 Perform preventive maintenance on personal computer components	
Identify and apply common preventive maintenance techniques for personal computer components	3, 4, 6, 7, 8, 10, 11, 15, 16, 17
Domain 2.0—Laptop and Portable Devices	
2.1 Identify the fundamental principles of using laptops and portable devices	
Identify appropriate applications for laptop-specific communication connections such as Bluetooth, infrared, cellular WAN, and Ethernet	19, 21
Identify appropriate laptop-specific power and electrical input devices and determine how amperage and voltage can affect performance	19
Identify the major components of the LCD including inverter, screen, and video card	19

Topic	Chapter(s)
2.2 Install, configure, optimize, and upgrade laptops and portable devices	
Demonstrate safe removal of laptop-specific hardware such as peripherals, hot-swappable devices, and non-hot-swappable devices	19
Describe how video sharing affects memory upgrades	19
2.3 Use tools, diagnostic procedures, and troubleshooting techniques for laptops and portable devices	
Use procedures and techniques to diagnose power conditions, video issues, keyboard and pointer issues, and wireless card issues	19
Domain 3.0—Operating Systems	
3.1 Identify the fundamental principles of operating systems	
Use command-line functions and utilities to manage operating systems, including proper syntax and switches	14
Identify concepts and procedures for creating, viewing, and managing disks, directories, and files in operating systems	10
Locate and use operating system utilities and available switches	5, 6, 10, 13, 14, 15, 22
3.2 Install, configure, optimize, and upgrade operating systems	
Identify procedures and utilities used to optimize operating systems	15
3.3 Identify tools, diagnostic procedures, and troubleshooting techniques for operating systems	
Demonstrate the ability to recover operating systems	15
Recognize and resolve common operational problems	15, 20
Recognize and resolve common error messages and codes	15
Use diagnostic utilities and tools to resolve operational problems	5, 6, 7, 12, 15, 22
3.4 Perform preventive maintenance on operating systems	
Demonstrate the ability to perform preventive maintenance on operating systems including software and Windows updates (e.g., Service Packs), scheduled backups/restore, restore points	15
Domain 4.0—Printers and Scanners	
4.1 Identify the fundamental principles of using printers and scanners	
Describe processes used by printers and scanners including laser, ink dispersion, thermal, solid ink, and impact printers and scanners	16, 20
4.2 Install, configure, optimize, and upgrade printers and scanners	
Install and configure printers/scanners	16, 20
Install and configure printer upgrades including memory and firmware	20
Optimize scanner performance including resolution, file format, and default settings	16
4.3 Identify tools and diagnostic procedures for troubleshooting printers and scanners	
Gather information about printer/scanner problems	16, 20
Review and analyze collected data	16, 20

Topic	Chapter(s)
Isolate and resolve identified printer/scanner problems including defining the cause, applying the fix, and verifying functionality	16, 20
Identify appropriate tools used for troubleshooting and repairing printer/scanner problems	16, 20
4.4 Perform preventive maintenance of printers and scanners	
Perform scheduled maintenance according to vendor guidelines	16, 20
Ensure a suitable environment	16, 20
Use recommended supplies	20
Domain 5.0—Networks	
5.1 Identify the fundamental principles of networks	
Identify names, purposes, and characteristics of basic network protocols and technologies	21, 22
Identify names, purposes, and characteristics of technologies for establishing connectivity	21, 22
5.2 Install, configure, optimize, and upgrade networks	
Install and configure browsers	22
Establish network connectivity	21, 22
Demonstrate the ability to share network resources	21, 22
5.3 Use tools and diagnostic procedures to troubleshoot network problems	
Identify names, purposes, and characteristics of tools	21
Diagnose and troubleshoot basic network issues	21
5.4 Perform preventive maintenance of networks, including securing and protecting network cabling	24
Domain 6.0—Security	
6.1 Identify the fundamental principles of security	
Identify the purposes and characteristics of access control	15, 23
Identify the purposes and characteristics of auditing and event logging	23
6.2 Install, configure, upgrade, and optimize security	
Install and configure software, wireless, and data security	5, 23
6.3 Identify tools, diagnostic procedures, and troubleshooting techniques for security	
Diagnose and troubleshoot software and data security issues	15, 23
6.4 Perform preventive maintenance for computer security	
Recognize social engineering and address social engineering situations	23
Domain 7.0—Safety and Environmental Issues	
7.1 Identify potential hazards and proper safety procedures including power supply, display devices, and environment	8, 17, 21

Topic	Chapter(s)
Domain 8.0—Communication and Professionalism	
8.1 Use good communication skills, including listening and tact/discretion, when communicating with customers and colleagues	24
8.2 Use job-related professional behavior including notation of privacy, confidentiality, and respect for the customer and customer's property	24

CompTIA A+ 220-603 (Help Desk Technician) Objectives Map

Topic	Chapter(s)
Domain 1.0—Personal Computer Components	
1.1 Install, configure, optimize, and upgrade personal computer components	
Add, remove, and configure display devices, input devices, and adapter cards including basic input and multimedia devices	6, 11, 16, 17
1.2 Identify tools, diagnostic procedures, and troubleshooting techniques for personal computer components	
Identify and apply basic diagnostic procedures and troubleshooting techniques	3, 4, 6, 7, 8, 9, 10, 11, 17, 18
Recognize and isolate issues with display, peripheral, multimedia, specialty input devices, and storage	9, 10, 11, 16, 17
Apply steps in troubleshooting techniques to identify problems (e.g., physical environment, functionality, and software/driver settings) with components including display, input devices, and adapter cards	6, 16, 17
1.3 Perform preventive maintenance on personal computer components	
Identify and apply common preventive maintenance techniques for storage devices	9, 10, 11
Domain 2.0—Operating Systems	
2.1 Identify the fundamental principles of using operating systems	
Use command-line functions and utilities to manage Windows 2000, XP Professional, and XP Home, including proper syntax and switches	14
Identify concepts and procedures for creating, viewing, and managing disks, directories, and files in Windows 2000, XP Professional, and XP Home	13, 15
Locate and use Windows 2000, XP Professional, and XP Home utilities and available switches	13, 15

Topic	Chapter(s)
2.2 Install, configure, optimize, and upgrade operating systems	
Identify procedures and utilities used to optimize the performance of Windows 2000, XP Professional, and XP Home	13, 15
2.3 Identify tools, diagnostic procedures, and troubleshooting techniques for operating systems	
Recognize and resolve common operational problems	13, 15
Recognize and resolve common error messages and codes	13, 15
Use diagnostic utilities and tools to resolve operational problems	13, 15
2.4 Perform preventive maintenance on operating systems	
Perform preventive maintenance on Windows 2000, XP Professional, and XP Home including software and Windows updates (e.g., Service Packs)	13, 15
Domain 3.0—Printers and Scanners	
3.1 Identify the fundamental principles of using printers and scanners	
Describe processes used by printers and scanners including laser, ink dispersion, thermal, solid ink, and impact printers	16, 20
3.2 Install, configure, optimize, and upgrade printers and scanners	
Install and configure printers/scanners	16, 20
Optimize scanner performance including resolution, file format, and default settings	16
3.3 Identify tools, diagnostic procedures, and troubleshooting techniques for printers and scanners	
Gather information required to troubleshoot printer/scanner problems	16, 20
Troubleshoot a print failure	20
Domain 4.0—Networks	
4.1 Identify the fundamental principles of networks	
Identify names, purposes, and characteristics of basic network protocols and terminologies	21, 22
Identify names, purposes, and characteristics of technologies for establishing connectivity	21, 22
4.2 Install, configure, optimize, and upgrade networks	
Establish network connectivity and share network resources	21, 22
4.3 Use tools, diagnostic procedures, and troubleshooting techniques for networks	
Identify the names, purposes, and characteristics of command-line tools	21
Diagnose and troubleshoot basic network issues	21

Topic	Chapter(s)
Domain 5.0—Security	
5.1 Identify the fundamental principles of security	
Identify the names, purposes, and characteristics of access control and permissions	15, 23
5.2 Install, configure, upgrade, and optimize security	
Install and configure hardware, software, wireless, and data security	5, 15, 23
5.3 Identify tools, diagnostic procedures, and troubleshooting techniques for security issues	
Diagnose and troubleshoot software and data security issues	15, 23
5.4 Perform preventive maintenance for computer security	
Recognize social engineering and address social engineering situations	23
Domain 6.0—Communication and Professionalism	
6.1 Use good communication skills, including listening and tact/discretion, when communicating with customers and colleagues	24
6.2 Use job-related professional behavior including notation of privacy, confidentiality, and respect for the customer and customer's property	24

CompTIA A+ 220-604 (Depot Technician) Objectives Map

Topic	Chapter(s)
Domain 1.0—Personal Computer Components	
1.1 Install, configure, optimize, and upgrade personal computer components	
Add, remove, and configure internal storage devices, motherboards, power supplies, processors/CPUs, memory, and adapter cards	3, 4, 6, 7, 8, 9, 10, 11, 16, 17
Add, remove, and configure systems	3, 4, 6, 7, 8, 9, 10, 11, 16, 17
1.2 Identify tools, diagnostic procedures, and troubleshooting techniques for personal computer components	
Identify and apply basic diagnostic procedures and troubleshooting techniques	3, 4, 6, 7, 8, 9, 10, 17
Identify the steps used to troubleshoot components (e.g., check proper seating, installation, appropriate components, settings, and current driver)	3, 4, 6, 7, 8, 16, 17
Recognize the names, purposes, characteristics, and appropriate application of tools	2, 8, 20, 22, 24

Topic	Chapter(s)
1.3 Perform preventive maintenance on personal computer components	
Identify and apply common preventive maintenance techniques	3, 4, 6, 7, 8, 10, 11, 15, 16, 17
Domain 2.0—Laptop and Portable Devices	
2.1 Identify the fundamental principles of using laptops and portable devices	
Identify appropriate applications for laptop-specific communication connections such as Bluetooth, infrared, cellular WAN, and Ethernet	19, 21
Identify appropriate laptop-specific power and electrical input devices	19
2.2 Install, configure, optimize, and upgrade laptops and portable devices	
Demonstrate safe removal of laptop-specific hardware such as peripherals, hot-swappable devices, and non-hot-swappable devices	19
Describe how video sharing affects memory upgrades	19
2.3 Use tools, diagnostic procedures, and troubleshooting techniques for laptops and portable devices	
Use procedures and techniques to diagnose power conditions, video issues, keyboard and pointer issues, and wireless card issues	19
Domain 3.0—Printers and Scanners	
3.1 Identify the fundamental principles of using printers and scanners	
Describe processes used by printers and scanners including laser, inkjet, thermal, solid ink, and impact printers	16, 20
3.2 Install, configure, optimize, and upgrade printers and scanners	
Identify the steps used in the installation and configuration processes for printers and scanners	16, 20
Install and configure printer/scanner upgrades including memory and firmware	16, 20
3.3 Identify tools, diagnostic methods, and troubleshooting procedures for printers and scanners	
Gather data about printer/scanner problem	16, 20
Review and analyze data collected about printer/scanner problems	16, 20
Implement solutions to solve identified printer/scanner problems	16, 20
Identify appropriate tools used for troubleshooting and repairing printer/scanner problems	16, 20
3.4 Perform preventive maintenance of printers and scanners	
Perform scheduled maintenance according to vendor guidelines	16, 20
Ensure a suitable environment	16, 20
Use recommended supplies	20

Topic	Chapter(s)
Domain 4.0—Security	
4.1 Identify the names, purposes, and characteristics of physical security devices and processes	
Control access to PCs, servers, laptops, and restricted spaces	23
4.2 Install hardware security	
[Install] smart card readers	23
[Install] key fobs	23
[Install] biometric devices	23
Domain 5.0—Safety and Environmental Issues	
5.1 Identify potential hazards and proper safety procedures including power supply, display devices, and environment	8, 17, 21