

Chapter 23

Portable Computing



Episode: **Laptop Features**

Objective(s):

Core 1: 1.1 Given a scenario, install and configure laptop hardware and components.

Core 1: 1.2 Compare and contrast the display components of mobile devices.

Core 1: 1.3 Given a scenario, set up and configure accessories and ports of mobile devices.

Core 1: 1.4 Given a scenario, configure basic mobile-device network connectivity and application support.

Core 2: 2.1 Summarize various security measures and their purposes.



Episode Description

A+

Portable computers use the function key (Fn) to activate alternative features. These include screen sharing, power settings, audio options, and more. The Settings app in Windows enables you to adjust a host of laptop settings (which mirror desktop settings as well).

CompTIA



Key Terms

A+

- 1:12 - Special function keys
- 1:19 - Dual displays
- 1:29 - Objective term - Touchpad/trackpad (on/off)
- 1:39 - Objective term - Economy/battery saver mode
- 1:45 - Objective term - Webcam (on/off)
- 1:55 - Airplane mode
- 1:59 - Objective term - Bluetooth (on/off), Wireless (on/off)
- 2:13 - Volume settings

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Key Terms

A+

- 2:19 - Screen brightness
- 2:28 - Keyboard backlight
- 3:18 - Objective term - Enable Bluetooth
- 5:00 - Objective term - GPS (on/off)
- 5:25 - Objective term - Physical laptop lock and cable lock
- 6:31 - Objective term - Docking station
- 6:59 - Objective term - Port replicator

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Quick Review

- Portable computers have a function (Fn) key to activate alternative options
- Use Settings in Windows to control many aspects of portable computers
- Use a lock to secure a laptop when in a public space
- Docking stations and port replicators extend the capabilities of some laptops



Episode: **Laptop Hardware
Troubleshooting - The Tools**

Objective(s): Core 1: 1.1 Given a scenario, install and configure laptop hardware and components.
Core 2: 5.5 Given a scenario, troubleshoot common issues with mobile devices.



Episode Description

A+

Laptops have many technician-replaceable parts. Check for online documentation before starting and proceed with caution. Mike explores laptop dissection in this episode.

CompTIA



Key Terms

A+

- 0:34 - Use caution!
- 2:37 - Objective term - Standardized parts like HDDs, SSDs, and RAM can be bought from any computer parts store or website
- 3:03 - Objective term - Broken cases, screens, touchpads, etc. must come from the manufacturer

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Quick Review

- Start laptop repair by reviewing manufacturer online information
- Standardized parts can be bought from any computer parts store; specialized parts must be bought from the manufacturer or their-party sites
- Use caution on screws and connections; take pictures of the disassembly process



Episode: **Laptop Hardware - Core Hardware**

Objective(s): Core 1: 1.1 Given a scenario, install and configure laptop hardware and components.
Core 1: 1.2 Compare and contrast the display components of mobile devices.
Core 1: 3.3 Given a scenario, select and install storage devices.



Episode Description

A+

Laptops have many technician-replaceable parts. Check for online documentation before starting and proceed with caution. Mike explores laptop dissection in this episode.

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Key Terms

A+

- 0:11 - Objective term - Battery
- 0:34 - Objective term - Hard drive
- 1:02 - Objective term - 2.5-inch hard drive
- 1:14 - SODIMM RAM
- 1:56 - Real-time clock battery

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Key Terms

A+

- 2:18 - Objective term - Mini PCIe slot
- 2:42 - Objective term - Wireless card and Wi-Fi antenna connector
- 2:58 - Objective term - Optical drive

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Quick Review

- Commonly replaced laptop parts include batteries, hard drives, RAM, wireless cards and optical drives
- Be sure to refer to the manufacturer's website for how to disassemble a laptop
- Search third-party sites for discount prices on core laptop hardware



Episode: **Laptop Hardware - CPU and Motherboard**

Objective(s): Core 1: 1.1 Given a scenario, install and configure laptop hardware and components.
Core 1: 1.2 Compare and contrast the display components of mobile devices.



Episode Description

A+

Laptops have many technician-replaceable parts. Check for online documentation before starting and proceed with caution. Mike explores laptop dissection in this episode.

CompTIA



Key Terms

A+

- 0:47 - Objective term - Monitor/display
- 0:55 - Objective term - Wi-Fi antenna connector/placement
- 1:41 - Objective term - Keyboard
- 1:48 - Objective term - Touchpad/trackpad

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Key Terms

A+

- 2:23 - Smart card reader
- 3:04 - Charging circuit/DC jack
- 4:36 - Motherboard
- 4:42 - CPU

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Quick Review

- The Wi-Fi antenna for many laptops runs around the monitor
- As you dig more into a laptop, the components become harder and harder to replace
- Many laptop CPUs are soldered onto the motherboard and can't be replaced
- Use caution on screws and connections; take pictures of the disassembly process



Episode: **Touring Your Laptop Display**

Objective(s):

Core 1: 1.1 Given a scenario, install and configure laptop hardware and components.

Core 1: 1.2 Compare and contrast the display components of mobile devices.



Episode Description

A+

Replacing a laptop monitor requires careful connectivity for the many internal components. Aside from the display, the laptop monitor can have a Wi-Fi antenna, webcam, touch screen sensors, and more.

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Key Terms

A+

- 0:52 - Objective term - Connector for laptop touch screen and webcam
- 1:06 - Objective term - Wi-Fi antenna connector
- 2:34 - Objective term - Wi-Fi antenna placement

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Quick Review

- Check connections when replacing laptop monitors
- Spudgers and heat guns are essential monitor tools
- Inside the monitor is the Wi-Fi antenna, webcam, touch screen, and more

