IT Fundamentals Pro: Chapter 6.3 Wired and Wireless Networking

IT Fundamentals Pro: Chapter 6.3 Wired and Wireless Networking	
Grade	**11/12**
Unit of Study	**Information Technology Fundamentals**
Length of Unit	**100 Min**

Missouri Learning Standards	
• 15.1202-F1:Discuss network wiring systems capabilities	• 15.1202-F5: Install and configure switches and routers on a network
• 15.1202-F4: Explain network communication equipment functions (e.g., modems, DSU/CSU, bridges, switches, routers, and hubs)	• 15.1202-F2: Explain current wiring technologies (copper and fiber) according to current standards (e.g., TIA/EIA, IEEE, and ANSI)
• 15.1202-G3: Explain current network standards and pseudo-standards (e.g., IEEE, RFCs, and ISO)	

Unit 6.3: Learning Targets

I can:
• Describe the most common networking cable types, including twisted pair, coaxial, and fiber optic cables.
• Use an Ethernet cable to connect a workstation to a local area network.
• Compare and contrast wireless networking standards, including IEEE 802.11 (Wi-Fi) and Bluetooth.
• Connect to a public Wi-Fi network.
• Connect to a secure wireless network.
• Describe best practices in installing and configuring a wireless network.
• Describe the most common ways to set up printing over a network.
• Install a wireless access point, including the appropriate cable connections.
• Configure a laptop to connect to a wireless network.
• Share a printer with other users on a local network.
• Add a shared printer to the list of available printers on another workstation.
• Pair Bluetooth speakers with a mobile device.
o Discover available Bluetooth devices.
o Connect a mobile device to Bluetooth speakers.

Intervention and Enrichment

IT Fundamentals Pro: Chapter 6.3 Wired and Wireless Networking

Assessments	
MLS (Learning Goal)	**Description or Location**
• 15.1202-F1 • 15.1202-F2 • 15.1202-F4 • 15.1202-F5 • 15.1202-G3	Ch. 6 Exam
	ITF+ (FC0-U61) Exam

Vocabulary			
Network Cable	Coaxial Cable	Twisted Pair Cable	Electromagnetic Interference
Twisted Pair Category	Fiber Optic Cable	Registered Jack 11 (RJ-11) Interface	Registered Jack 45 (RJ-45) Interface
Ethernet	Router	Switch	IEEE 802 Standards
IEEE 802.11 Standards	IEEE 802.11 Encryption Protocols	Frequency	Attenuation
Interference	Speed	Bluetooth	Wi-Fi

Instructional Materials
Video/Demo 6.3.1 Network Cables

IT Fundamentals Pro: Chapter 6.3 Wired and Wireless Networking

6.3.2 Ethernet
6.3.3 Set Up an Ethernet Connection
6.3.5 Wireless Standards
6.3.7 Use a Wireless Network
6.3.10 Pair Bluetooth Headphones with a Mobile Device
6.3.12 Configure Network Printing
6.3.14 Create a Home Wireless Network

Lab/Activity
6.3.4 Set Up an Ethernet Connection
6.3.8 Use a Wireless Network
6.3.11 Pair Bluetooth Headphones with a Mobile Device
6.3.13 Configure Network Printing
6.3.15 Create a Home Wireless Network

Additional Instructional Resources

6.3.6 Wireless Standard Facts
6.3.9 Bluetooth

Reflections for Future Revisions