

# Domain 4 Lesson Plan

## Domain 4 - Infrastructure [approximately 3.5 hours of videos, labs, and projects]

Lesson	Lesson Topic and Subtopics	Objectives	Exercise Labs	Workbook Projects and Files
<b>Pre-Assessment</b> Assessment time - 00:30:00	Infrastructure: Pre-Assessment			
<b>Lesson 1</b> Video time - 00:07:08 Exercise Lab time - 00:00:00 Workbook time - 00:15:00	<b>Identify Status Lights</b> Link Light Color and Status <b>Network Diagrams</b> Patch Cables Switches and Routers Small Topologies	4.1 Identify the status lights on a Cisco device when given instruction by an engineer 4.1.1 Link light color and status (blinking or solid) 4.2 Use a network diagram provided by an engineer to attach the appropriate cables 4.2.1 Patch cables 4.2.2 Switches and routers 4.2.3 Small topologies 4.2.4 Power 4.2.5 Rack layout	N/A	Status Lights – pg. 50 N/A Network Diagrams – pg. 51 N/A Small Topologies – pg. 52 N/A
<b>Lesson 2</b> Video time - 00:06:41 Exercise Lab time - 00:08:00 Workbook time - 00:15:00	<b>Network Device Ports</b> Console and Serial Ports Fiber and Ethernet Ports SFPs and USB Ports PoE	4.3 Identify the various ports on network devices 4.3.1 Console port 4.3.2 Serial port 4.3.3 Fiber port 4.3.4 Ethernet ports 4.3.5 SFPs 4.3.6 USB port 4.3.7 PoE	Port Identification Internet Connection Ports	Console and Serial Ports – pg. 54 N/A Fiber and Ethernet Ports – pg. 55 411-link light.pkt SFPs, USB, and PoE – pg. 56 411-link light.pkt
<b>Lesson 3</b> Video time - 00:06:57 Exercise Lab time - 00:04:00 Workbook time - 00:20:00	<b>Basic Routing Concepts</b> Default Gateway Layer 2 vs. Layer 3 Switches Local vs. Remote Networks	4.4 Explain basic routing concepts 4.4.1 Default gateway 4.4.2 Layer 2 vs. layer 3 switches 4.4.3 Local network vs. remote network	Default Gateway	Default Gateway – pg. 58 N/A Multilayer Switches – pg. 59 411-link light.pkt Local and Remote Networks – pg. 60 411-link light.pkt
<b>Lesson 4</b> Video time - 00:08:03 Exercise Lab time - 00:08:00 Workbook time - 00:15:00	<b>Basic Switching Concepts</b> MAC Address Tables MAC Address Filtering VLANs	4.5 Explain basic switching concepts 4.5.1 MAC address tables 4.5.2 MAC address filtering 4.5.3 VLAN (Layer 2 network segment)	Show MAC Address Table Create a VLAN	MAC Address Tables – pg. 62 N/A MAC Address Filtering – pg. 63 N/A Virtual LANs – pg. 64 N/A
<b>Post-Assessment</b> Assessment time - 01:00:00	Infrastructure: Post-Assessment			