

REVIEW LESSON

MTA Course: 10753 Windows Operating System Fundamentals

Lesson name: Windows Operating System Fundamentals 5.3

Topic: Understand printing devices (One 50-minute class period)

File name: 10753_WindowsOS_RL_5.3

Lesson Objective

5.3: Understand printing devices. *This objective may include but is not limited to:* understanding local printers, network printers, print queues, print-to-file, and Internet printing.

Preparation Details

Prerequisite student experiences and knowledge:

This MTA Certification Exam Review lesson is written for students who have learned about Microsoft Windows fundamentals. Students who do not have the prerequisite knowledge and experiences cited in the objective will find additional learning opportunities using resources such as those listed in the “Resources” section at the end of this review lesson.

Instructor preparation activities:

- Make copies available of the Student Activity document 10753_WindowsOS_SA_5.3.
- The instructor should have access to an existing system running Windows 7 Professional or a virtual machine with Windows 7 Professional installed for the purpose of demonstrating how to use print devices.
 - The system should have access to a network printer or a local printer.

Resources, software, and additional files needed for this lesson:

- 10753_WindowsOS_SA_5.3
- 10753_WindowsOS_SA_5.3_key
- 10753_WindowsOS_PPT_5.3

Teaching Guide

Essential Vocabulary

port—a hardware- or software-based interface used to transfer information between a computer and other devices. Hardware ports are physical connections that are visible on the outside of the computer. Software ports are the numbered interfaces in programs that software programs use to exchange information.

print driver—a program that controls or regulates a printer; each print queue requires a printer driver.

print queue—a representation of a printing device in Windows. Opening a print queue displays active print jobs and their status.

print spooler—computer software that intercepts a print job on its way to the printer and sends it to disk or memory instead, where the print job is held until the printer is ready for it. The term *spooler* is an acronym created from the phrase “simultaneous peripheral operations on line.”

Lesson Sequence

Activating prior knowledge/lesson staging (5 minutes):

Direct students to answer each question in their notes.

1. What service loads files into memory for later printing? (The Print Spooler service.)
2. What is a print queue? (A representation of a print device in Windows. Opening a print queue displays active print jobs and their status.)
3. What is Internet printing? (A system that makes it possible for computers running Windows 7 to use printers located anywhere in the world.)

Lesson activity (40 minutes):

1. Teacher instruction (20 minutes; see the “Suggested best practices” section below regarding this presentation.)
 - a. Use the included Microsoft PowerPoint presentation to review printing devices.
2. Guided practice (20 minutes)
 - a. Direct the students to complete the Student Activity document 10753_WindowsOS_SA_5.3.

Assessment/lesson reflection (5 minutes):

1. In the same notes that they created for the “Activating prior knowledge/lesson staging” at the beginning of the class, direct students to check their initial answers and make any changes if necessary.
2. Instruct students to write and submit any questions they have or any topics about which they would like more assistance.
3. After class, look through student responses and follow up with any students requiring additional help.

Resources:

- **Microsoft: Windows 7 features: Device Management**
<http://windows.microsoft.com/en-us/windows7/products/features/device-management>
- **Microsoft: TechNet: Printing Infrastructure**
[http://technet.microsoft.com/en-us/library/dd393190\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/dd393190(WS.10).aspx)
- **Microsoft: TechNet: Internet Printing**
[http://technet.microsoft.com/en-us/library/ee126092\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/ee126092(WS.10).aspx)
- **Microsoft: Install a printer (video)**
<http://windows.microsoft.com/en-us/windows7/Install-a-printer>

Suggested best practices:

- If the classroom has only a single network printer, students can move to the second portion of the activity.
- It is important to emphasize the significance of printing in today’s business environment. Businesses are working to migrate to paperless offices, but that is not the current reality in most places.
- Multifunction print devices are becoming more and more popular in business. These devices not only can print, fax, scan and copy, but they can also be configured to send scanned documents to an email inbox on the local area network (LAN).