Peripheral Connections

WHAT IS YOUR FAVORITE ACCESSORY you wear? Maybe you have a favorite hat, pair of earrings, shoes or belt. What is your favorite computer accessory (peripheral)? Peripherals make computing easier. Imagine using a computer without a mouse or not having speakers to hear your favorite video. In this lesson, you will discover how peripherals are used in an office.

Objective:

☑ Describe the most common peripherals.

Key Terms:

Bluetooth technology
external hard drive
HDMI port
headset
input peripheral
keyboard
microphone
monitor

mouse
output peripheral
peripheral
printer
projector
scanner
secondary storage
speaker

storage peripheral
stylus
touchpad
USB flash drive
USB port
virtual meeting
webcam

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PERIPHERAL EQUIPMENT

Computer equipment and the peripherals associated are used to do many tasks in an office that were once done manually. As computer technology continues to advance, companies have

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taken advantage of the efficiency provided to increase productivity and profitability. There are certain peripherals that may be found in the workplace no matter what the office setting. A **peripheral** is a device separate from the computer that connects and cooperates with the computer. There are three categories of computer peripherals: input, output and storage. Some peripherals fall into more than one category.

Input Peripherals

An **input peripheral** is a device that enable users to enter data into the computer.

- A **mouse** is an input device that works with the computer using point-and-click technology. A mouse may be connected to a computer through a USB port or wirelessly through Bluetooth technology. A **USB port** is the most common cable connection interface on personal computers used to connect peripheral devices. **Bluetooth technology** is a wireless connection between peripherals and a computer.

- A **keyboard** is an input device made up of a panel of keys used to enter text in a computer. Like the mouse, a keyboard may be connected through a USB port or through Bluetooth technology.

- A **webcam** is a video camera that inputs images to a computer. Webcams may be used as a communication tool for videoconferencing, training and interviews. A webcam may be connected to the computer through a USB port or HDMI port. An **HDMI port** accepts high-definition multimedia interface cable used to digitally transmit audio and video.

- A **microphone** is an audio input device. Microphones are often used with webcams for broadcasting videoconferencing, training and interviews. Microphones may be built into webcams or computers. They may also be combined with headphones. A **headset** is a pair of headphones that includes a microphone.

- A **scanner** is a device that converts paper into a digital file so that a computer can open, manipulate, and store for computer use. The scanner typically converts the paper into a PDF or JPEG file. PDF (Portable Document Format) is an electronic file format that converts printed document to an electronic image that the user can view, navigate, print, or forward to someone else. Scanners are frequently used to take information that was not originally in an electronic format and convert it to files that may be stored on the computer. Scanners are used in offices to store photo IDs, pictures, insurance cards, etc.

- A **touchpad** a small panel that senses the user's finger movement and is used as an alternative to a mouse.

- According to Dictionary.com (https://www.dictionary.com/browse/stylus) a **stylus** is a pen-shaped device used on a display screen to input com-

FIGURE 1. Game controllers are input peripherals that you don't typically see in an office setting. They have evolved in ways similar to other input devices.

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mands or handwritten text or drawings. A stylus may be used for taking handwritten notes or sketching out thoughts that will be saved on the computer. Many software applications allow the handwritten information to be converted to typed text.

Output Peripherals

An **output peripheral** is a device that enables the computer to play media and produce hard copies.

♦ A **monitor** is used to display information in a picture format. Monitors are the primary output device associated with computers. Television screens may also be connected to a computer to be used in place of a monitor. Monitors and televisions may be connected through different port types including VGA, DVI, HDMI and USB.

♦ A **speaker** is an external hardware output device that produces sound created by a computer's sound card. Speakers may be connected through a USB port or wirelessly. Computer speakers are used for webinars, teleconferences and videoconferences. They are used for multi-media presentations and training. Speakers are needed in order to get the full effect of videos. Many instructional videos as well as product information videos require speakers. Headphones are a type of speaker that are worn over the ears. Headphones may connect through a headphone jack, USB port or wirelessly.

♦ A **printer** is an external hardware output device that transfers the digital information stored on a computer to paper. Printers may be connected through a USB port or wirelessly. Printers are used to create hard copies of information that may be shared with employees, vendors and customers. Printers may be used to print promotional materials, financial statements, invoices, and other business documents.

♦ A **projector** is an external hardware output device that uses light to project an image onto a larger surface. Projectors may be connected through HDMI ports or wirelessly. Projectors are used to give presentations in an office. Presentations may be used for employee training, client pitches or sharing information with management.

Storage Peripheral

A **storage peripheral** is a device used to back up data or expand data storage capacities by connecting the computer to an external device. **Secondary storage** refers to removable media ideal for housing files and folders to be stored away from the computer. A **USB flash drive**, sometimes called a pen drive or thumb drive, is a flash memory storage device that plugs into a USB port on a computer. USB flash drives are convenient for mobile users

FURTHER EXPLORATION...

ONLINE CONNECTION: Timeline of Computer Monitors

To review a timeline of computer monitor developments go to the following link:
https://www.computerhope.com/history/monitor.htm.

because they are small and lightweight enough to be transported on a keychain or in a pocket. An **external hard drive** is a device used to store electronic date that is connected to the computer through a USB port and holds larger amounts of data than a flash drive. External hard drives are available that hold a full terabyte of data.

Multi-Purpose Devices

Some devices may be classified in more than one category since they function in more than one way. For example, a monitor with touch screen capabilities is used for output when viewing the screen but output when touching the screen instead of using a mouse. In addition, a headset has a microphone, which is an input device and headphones which are output devices.

FIGURE 2. A touchscreen monitor is used for output when viewing the screen and output when touching the screen rather than using a mouse or keyboard.

APPROPRIATE PERIPHERAL USE

Peripherals are not used in isolation. Typically, more than one peripheral will be used at the same time when a computer is being used. Following are common scenarios from business and how peripherals would be used.

Preparing Documents

In any given office, documents are prepared regularly using word processing and spread-sheet programs. Information is entered, data is manipulated, and results are shared in both hard copy and digital format. Typically, a keyboard, and printer are all used. In addition, the information will be stored electronically using an external hard drive.

Virtual Meetings

A **virtual meeting** occurs when people use video, audio and text to share information and data in real-time from different locations. Virtual meetings may involve using the mouse, key-board, monitor, webcam, microphone, speakers, and headsets.

Employee Training

If a company is training employees, they may a projector or television screen so generate images that are easier for groups to see.

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Electronic Archives

Suppose a company decides to electronically archive several old files that are sitting in filing cabinets taking up large amounts of space. The company would use a scanner to convert the hard copies to electronic format. All of the files could be stored in the cloud or on an external hard drive, eliminating the need for physical storage.

Summary:

A peripheral is a device separate from the computer that connects and cooperates with the computer. There are three categories of computer peripherals: input, output and storage. Some peripherals fall into more than one category. An input peripheral is a device that enable users to enter data into the computer. An output peripheral is a device that enables the computer to play media and produce hard copies. A storage peripheral is a device used to back up data or expand data storage capacities by connecting the computer to an external device.

Checking Your Knowledge:

1. What is an input peripheral?
2. What is an output peripheral?
3. What is a storage peripheral?
4. List three examples of input peripherals.
5. List three examples of output peripherals.

Expanding Your Knowledge:

With your instructor's permission, arrange a field trip to an electronics store for demonstrations of the latest and most advanced peripheral devices.

Web Links:

Gaming Peripherals
https://www.eurogamer.net/articles/digitalfoundry-2019-01-09-best-gaming-peripherals-of-ces-2019-7030

Careers in Hardware Development
https://www.zippia.com/hardware-development-engineer-jobs/

Peripheral Buying Guide
https://techbuyersguru.com/best-keyboardmouse-buyers-guide-spring-2019

Wireless Technology
https://www.lifewire.com/what-is-wireless-2377432

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