Digital Literacy  

Lesson plan

Work with computers

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# Learning path

The **Work with computers** learning path introduces the different parts and types of the computer and their functions, the difference between operating systems, applications and their functions, and discusses peripherals and portable storage devices.

# Resources

Take time to review the learning path and module resources to support instructional delivery.

|  |  |
| --- | --- |
| Work with computers | * [Transcript: Work with computers](https://digital-literacy-courses-en-us.azurewebsites.net/en-us/digitalliteracy/newcourses/01_work_with_computers/course/SCO1/en-us/Content/Transcript_Work-with-computers.pdf) * PowerPoint: Work with computers * Printable certificate: Work with computers |
| Interact with a computer | * [Online course module for Interact with a computer](https://digital-literacy-courses-en-us.azurewebsites.net/en-us/digitalliteracy/newcourses/01_work_with_computers/course/SCO1/onlineLauncher.htm) * [Video: What is a computer](https://www.microsoft.com/videoplayer/embed/RWtIcb) * [Video: Parts of a computer](https://www.microsoft.com/videoplayer/embed/RWtIc2) * [Video: Types of personal computers](https://www.microsoft.com/videoplayer/embed/RWtVaa) |
| Use a computer | * [Online course module for Use a computer](https://digital-literacy-courses-en-us.azurewebsites.net/en-us/digitalliteracy/newcourses/01_work_with_computers/course/SCO1/onlineLauncher.htm) * [Video: What is an operating system](https://www.microsoft.com/videoplayer/embed/RWtXMf) * [Video: Navigate your OS](https://www.microsoft.com/videoplayer/embed/RWtQ2Z) * [Video: Work with files and folders](https://www.microsoft.com/videoplayer/embed/RWtKQg) * [Video: Understanding the right-](https://www.microsoft.com/en-us/videoplayer/embed/RWtVac)[click](https://www.microsoft.com/videoplayer/embed/RWtVac) * [Video: Work with windows](https://www.microsoft.com/videoplayer/embed/RWtVak) * [Video: Personalize your desktop](https://www.microsoft.com/videoplayer/embed/RWtXM2) * [Video: Use Cortana with Windows 10](https://www.microsoft.com/videoplayer/embed/RWtD0L) * [Video: Use accessibility features in Windows 10](https://www.microsoft.com/videoplayer/embed/RWtD0K) |
| Work with applications | * [Online course module for Work with applications](https://digital-literacy-courses-en-us.azurewebsites.net/en-us/digitalliteracy/newcourses/01_work_with_computers/course/SCO1/onlineLauncher.htm) * [Video: What is an application](https://www.microsoft.com/videoplayer/embed/RWtVag) * [Video: Choose the right application](https://www.microsoft.com/videoplayer/embed/RWtFEq) * [Video: Working with applications in Windows 10](https://www.microsoft.com/videoplayer/embed/RWtIcg) |
| Work with connected devices | * [Online course module for Work with connected devices](https://digital-literacy-courses-en-us.azurewebsites.net/en-us/digitalliteracy/newcourses/01_work_with_computers/course/SCO1/onlineLauncher.htm) * [Video: Connect a portable storage device in Windows 10](https://www.microsoft.com/videoplayer/embed/RWtQ2X) * [Video: Connect a Bluetooth device in Windows 10](https://www.microsoft.com/videoplayer/embed/RWtVah) |

# Glossary

Refer to glossary of common terms and their definitions during discussions.

|  |  |
| --- | --- |
| accessibility tools and features | There's no limit to who can use a computer. People with disabilities such as limited vision or hearing can use computers with the help of built-in accessibility tools and features. |
| application | Software programs that help get things done on computers. |
| Bluetooth | A wireless technology that makes possible for modern technologies to connect peripheral devices to computers without using cables. |
| computer | An electronic machine that can process, store, and retrieve different types of data and information. |
| hardware | Physical parts that make up a computer such as the monitor and the central processing unit, that keeps data moving. They share the same fundamental purpose of processing and storing information. |
| keyboard | An input device used to interact with a computer for activities such as to type letters, numbers, and characters that will be processed by the computer. |
| laptop | A portable personal computer, where all parts of the computer are contained in one device. |
| monitor | Sometimes referred to as the display, the part of a computer that displays output for users to view, like graphics and text. |
| mouse | A device used to interact with items displayed on the screen. When mouse is moved, a pointer on the screen also moves, allowing the operation of the computer. |
| operating system | The conductor of the computer that coordinates the software and hardware parts of the computer, making sure the different components work together to get things done. |
| peripheral devices | Types of devices that add functionality to a computer by providing input functions and/or output functions. |
| software | The intangible parts of a computer that cannot be physically touched, such as the instructions that control how the hardware functions, the applications running on the computer, and the data stored on the computer. |
| smartphone | A common type of portable personal computing device that is small enough to be handheld. |
| speakers | A device that allows sound to come from a computer. |
| tablet | A type of portable personal computer with computer parts contained in a single device; it is smaller than most laptops and typically the size of a book. |
| virtual assistants | Digital services that help perform tasks on a computer such as setting reminders, checking the weather, and searching the web. They are built into the operating systems of many modern devices. Some of the most popular virtual assistants are Microsoft Cortana, Apple Siri, and Google Assistant. |

# Lesson notes

Ideas to supplement your instructional activities for delivery of this learning path.

# Module: Interact with a computer

**Interact with a computer** introduces what a computer is, its parts, and how to interact with it, different parts and types of computers and their functions, differences between operating systems, applications and their functions, and peripherals and portable storage devices.

## Warm up

Ask learners to pair up with a learning partner and discuss some of the questions they have about interacting with a computer.

* A guiding question might be, “What are some of the primary components that make up a computer?”

Invite a few volunteers to share key highlights of their discussion and learning takeaways. Consider capturing learner responses using OneNote or a whiteboard.

## Engaging learners

Review the summary of responses from learners from the warm-up activity. Based on learner responses, ask learners to select from the series of videos available for this module.

Give learners time to review the videos on their own, with a learning partner. These videos introduce learners to the following topics:

* “**What is a computer**” covers the notion of software and hardware.
* “**Parts of a computer**” explores the primary hardware components that make up a computer and how these parts function together.
* “**Types of personal computers**” describes the various types of computers from desktop computers, laptops, and mobile phones, to devices such as calculators, gaming consoles, and smart TVs.

Ask learners to pair up with a learning partner to revisit more questions they might have about interacting with a computer, and also software.

* Related to the “**Parts of a computer**” video, a guiding question might be, “What are some of the primary hardware components that make up a computer?” Alternatively, another guiding question might be, “Describe the various parts which make up a computer.”
* Related to the “**Types of personal computers**” video, you can ask: “What are some of the ways that you can learn and share knowledge using the various personal computers?”

## Reinforcing learning

Ask learners to think about some of the questions they have about the various types of modern personal computing devices.

* A guiding question might be, “Which personal computing devices might you use to get things done for a school project?”
* Consider taking 5 to 10 minutes for this activity, and then afterwards, invite a few volunteers to share their learning takeaways or experiences.

You can then revisit the various types of modern personal computing devices that are introduced by the “**Types of personal computers**” video.

## Wrap up

Ask learners to pair up once again with a learning partner and quiz each other using the **Knowledge check** questions.

## Knowledge check answer key

1. Which of these devices is not a computer?
   1. A desktop
   2. A laptop
   3. A tablet
   4. **A monitor - Correct! A monitor is not a computer.**
2. Which of the following parts of a computer is considered an input device?
   1. Speakers
   2. Screen
   3. **Keyboard - Correct! A keyboard is an input device.**
   4. Motherboard
3. Harold needs to purchase a computer as they’re starting university. What they want is a computer with a built-in keyboard to type their lecture notes, and to work on their assignments at home. They’ll also need various applications and programs installed on the computer to complete their assignments.   
     
   What is the best type of computer for their needs?
   1. A desktop
   2. **A laptop - Correct! A laptop is a portable device with built-in keyboard.**
   3. A tablet
   4. A smartphone

# Module: Use a computer

**Use a computer** introduces operating systems and how to use the basic functions of the Windows 10 operating system.

## Warm up

Start with a brief discussion to understand what learners already know about the role of operating systems.

## Engaging learners

1. Use learners' responses in this warm-up to help segue to the appropriate subsequent learning activities to engage learners. Consider kicking off a discussion based on one of the video topics for this module.

* “**What is an operating system**” introduces the basic concepts of operating systems. Consider a demonstration of how computers can be used to create a text document. Use the graphical menus and buttons within the operating system to create the document, use the keyboard to enter text into the document, and save your file. Encourage learners to explore the video on their own or with a learning partner to find more guidance on the topic.
* “**Navigate the Windows 10 operating system**” explores the basics of working with an operating system. Although Windows 10 operating system is used as an example, remind learners that these concepts carry over to other operating systems too.

1. Consider introducing a real-world example of when two users might need to use the same Windows 10 computer, such as the scenario offered in the video:

Imagine two users that use the same Windows 10 computer. One user might want their device language to be English while the other might like it to be Arabic or another language. This is possible with Windows 10 devices.

1. Ask learners to practice the **Try it yourself** activity in the “**Navigate your OS**” to practice opening an application on their computer. Encourage the learners who are progressing to work with files and folders. Allow learners that become proficient with the concept to act as peer mentors as they review the remaining topics in the modules:
2. Organize files and folders in Windows 10
3. Use the right-click to access system features
4. Customize your operating system desktop
5. Interact with a virtual assistant to complete basic tasks
6. Encourage learners to explore the related videos to find more guidance on how to explore these options independently or with or learning partner. These videos provide walkthroughs of tasks performed in Windows 10:
7. Refer to “**Work with files and folders**” video for guidance on organizing files and folders in Windows 10.
8. Refer to “**Understanding the right-click**” video for guidance on how using the right-click to access system features.
9. Refer to the “**Personalize your desktop**” video for guidance on customizing the operating system desktop.
10. Refer to the “Use Cortana with Windows 10” video for guidance on interacting with a virtual assistant to complete basic tasks.

## Reinforcing learning

Consider demonstrating the walkthroughs of tasks performed in the video, “**Work with Windows**”, for using File Explorer, opening Microsoft Edge, using the “Maximize” and “Restore” buttons, reopening and restoring the window, opening Word, and opening multiple files at once.

Encourage learners who may be struggling with these steps to explore and revisit the “**Work with Windows**” video for more guidance.

If time, consider demonstrating the various types of operating system accessibility features, then leading a discussion about some of the accessibility features and how they are useful for people with disabilities.

## Wrap up

Encourage learners to explore the video, “**Use accessibility features in Windows 10**” with a learning partner, and then ask for volunteers to share their learning takeaways. Then, consider using the PowerPoint to review Knowledge check answer key with learners.

## Knowledge check answer key

1. Which of these functions is a task of an operating system?
   1. **Managing computer hardware - Correct! This task is one of the functions of the operating system.**
   2. Showing the user the working area
   3. Allowing the user to type
   4. Allowing the user to interact with the screen
2. An operating system is the most important \_\_\_\_\_\_\_\_\_\_\_ on the computer.
   1. Hardware
   2. **Software - Correct! An operating system is the software that manages all the other hardware and software.**
   3. Peripheral device
   4. Application
3. What happens when you select the "Minimize" button at the top of an application window?
   1. The window closes
   2. **The window hides until restored - Correct! The application is still** working**, and you can restore it.**
   3. The window goes full screen
   4. The window moves to the side of the screen
4. In Windows 10, which menu of the Settings app manages the accessibility settings?
   1. Devices
   2. Network and Internet
   3. **Ease of Access -Correct! This menu contains many accessibility features.**
   4. Privacy

# Module: Work with applications

**Work with** **applications** introduces more about apps, types of applications that can be used, and how to work with applications on computers.

## Warm up

Start with a brief discussion about applications, also known as apps. They are software programs that can be used to get things done on our computers.

* Ask for examples from learners’ daily lives (such as work or chores) about applications that can help solve problems.
* Alternatively, ask how applications can help solve new problems around the world, then invite 1 or 2 volunteers to share their learning takeaways.

## Engaging learners

Next, introduce examples of what applications can do to help get something done on a computer, such as performing a calculation, editing a photo, or sending a message.

Encourage learners to review the video in the module, “**What is an application**” for further guidance on learning how to describe the concept of an application.

Allow learners that become proficient with the concept to act as peer mentors as they practice the **Try it activity** from their online course module on finding the right application.

## Reinforcing learning

Encourage learners to explore the “**Choose the right application**” video to find more guidance on the topic.

Lead a discussion to support learners’ understanding between different applications.

Ask learners to pair up and explore examples on the types of projects they are working on which may require multiple apps to be open simultaneously.

## Wrap up

Invite a few volunteers to share their learning takeaways about the various applications covered during the module.

## Extending learning

Consider extending learning opportunities by encouraging learners who are entering the workforce to explore the LinkedIn application resources that are listed in **Resources**.

## Knowledge check answer key

1. Which one is an operating system?
   1. Notepad
   2. Microsoft Word
   3. **Microsoft Windows - Correct! Microsoft Windows is the most popular operating system.**
   4. Paint
2. Which one is a function of an application?
   1. Managing computer hardware
   2. Managing computer software
   3. Allowing human control of the computer
   4. **Doing quick calculations - Correct! A calculator is an application for doing calculations.**

# Module: Work with connected devices

**Work with connected devices** introduces how to use peripheral devices, portable storage devices, and Bluetooth devices.

## Warm up

Start with a brief discussion to explore what learners already know about connected devices.

* A guiding question might be, “What’s a Bluetooth?”
* A follow-up guiding question might be, “Which connected devices help you on a daily basis?”

Consider capturing learner responses using OneNote or a whiteboard, then compare their definition for Bluetooth with that of the term and its definition in the glossary.

## Engaging learners

Continue discussion about how peripheral devices add functionality to a computer by providing input functions and output functions.

* Ask for examples from learners’ about added functionalities with the help of peripheral devices that would be great to have.
* Encourage the use of the “**Connect a portable storage device in Windows 10**” video to find more guidance on how devices may be used in a real-world scenario.

If time, ask learners to pair up with a learning partner and explore, then discuss how a peripheral device can be connected to a computer without the use of cables, but with the use of Bluetooth.

For learners who are progressing, encourage them to practice using a primary device like a smartphone and a second device like a speaker, a computer, or some other digital device with connection capabilities.

Invite a few volunteers to share their learning takeaways.

## Reinforcing learning

If time and if appropriate, invite volunteers to demonstrate how a peripheral device can be connected to a computer.

Segue to a discussion about how Bluetooth can connect to a variety of devices to a computer without using any cables or wires.

Ask learners to practice working with Bluetooth, or alternatively ask learners to review these walkthrough steps in “**Connect a Bluetooth device in Windows 10**” video.

1. In Windows 10, go into the Start menu
2. Select "Settings”
3. Select "Devices"
4. Select "Bluetooth and other devices"
5. Click the plus button for "Add Bluetooth or other device"
6. Select "Bluetooth"
7. Click on the device you wish to connect to your computer
8. Follow any additional instructions that may appear
9. Click "Done"

## Wrap up

For the wrap up activity for this lesson, use hand signals where learners indicate with a show of hands how confident they are with working with connected devices.

* Five fingers might indicate that “I’ve got it”
* Three fingers might indicate that “I need more practice”
* One or no fingers might indicate that “I’m a bit lost”

For learners who need additional support and if time, consider conducting a brief step-by-step demonstration of the process to connect a Bluetooth device in Windows 10.

Alternatively, ask learners to review the walkthrough steps in “**Connect a Bluetooth device in Windows 10**” video.

## Knowledge check answer key

1. You can use the portable storage devices to:
   1. Improve storage abilities of your computer
   2. Transfer files from computer to another computer
   3. Save a copy in a safe location
   4. **All of the above - Correct! Portable storage devices make storing and dealing with files easier.**
2. These devices can be connected to a computer through Bluetooth technology except:
   1. Speakers
   2. Mouse
   3. **Hard drive - Correct! A hard drive needs to be connected directly to a computer. This affects the speed of accessing stored files.**
   4. Headphones



|  |  |
| --- | --- |
|  | <Name>  Has successfully completed the following Microsoft Digital Literacy course:  Work with computers  <Date> |

