

Identify Computing Devices

1. Computing Devices

1.1 Welcome



Notes:

Welcome to Identify Computing Devices. In this learning activity you will become familiar with the basic skills needed to use a computer.

1.2 Learning Objectives

Learning Objectives Glossary 1.2

After successfully completing this activity, you'll be able to:

- Identify the primary hardware of a computer.
- Identify the purposes of computer hardware components such as the system unit, monitor, printer, keyboard, mouse or touchpad, and USB ports.
- Compare various computing devices such as tablets, personal computers, laptops, and other mobile devices.
- Classify terms according to hardware, software, application, or system.
- Identify the components of a computer system.



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- Compare various computing devices such as tablets, personal computers, laptops, and other mobile devices.
- Classify terms according to hardware, software, applications, and systems.
- Identify the components of a computer system.

1.3 Desktop Parts



Notes:

A computer is an electronic device that processes information. With a computer you can create documents like resumes, look up information on the Internet, watch movies, play games, and much more. The computer in this picture is called a desktop computer. A desktop computer is designed to be used primarily in one location.

1.4 Desktop Hardware



Notes:

Select a marker to learn more about that component.

The computer tower holds the parts of the computer that make it work and process information.

The monitor displays visual information including text and images.

The keyboard is a typewriter-style device, which uses an arrangement of buttons or keys, to act as mechanical levers or electronic switches. Keyboards are one of the main input devices for computers.

The mouse is a pointing device that communicates with the computer.

1.5 PC vs Mac



Notes:

The computer you use may be a PC, which stands for personal computer. In the photo, the computer on the left is a PC. Companies like Dell, Acer, and Hewlett Packard produce PCs.

The computer on the right is a Mac, short for Macintosh, and is made by Apple. These two types of computers work a bit differently, but this learning activity will focus on their similarities.

1.6 Laptop Hardware



Notes:

The computer in this picture is called a laptop computer. While the desktop is meant to stay in one place, a laptop is easy to set up and use in different locations. Laptops usually run the same type of programs or software as desktop computers - they're just more portable. Laptops have a built-in keyboard, screen, and touchpad. An external mouse can be plugged in to replace the touchpad.

Select a marker to learn more about that component.

The screen displays visual information including text and images.

The keyboard is a typewriter-style device, which uses an arrangement of buttons or keys, to act as mechanical levers or electronic switches. Keyboards are one of the main input devices for computers.

The touchpad is a pointing device that communicates with the computer. This is found on laptop computers and can be used instead of a computer mouse.

The computer case holds the parts of the computer that make it work and process information.

1.7 Practice Identification

Practice Glossary 1.7



Select a button below to identify the computer part.

Monitor/Screen	Keyboard	Touchpad
Tower	Case	Mouse

The image shows a woman in a red shirt and black pants standing next to a laptop and a desktop computer. The desktop computer includes a monitor, a keyboard, a mouse, and a tower case. The laptop is open and displaying a web page. The woman has her arms crossed and is smiling.

Notes:

Let's practice identifying the parts of a computer. Select each term to highlight the corresponding part on the laptop or desktop computer.

2. Mobile Devices

2.1 Types



Notes:

Now, let's look at a type of computer called a mobile device. Mobile devices are hand-held computers. Tablets, e-readers, and smartphones are all mobile devices and are designed to be portable and easy to use.

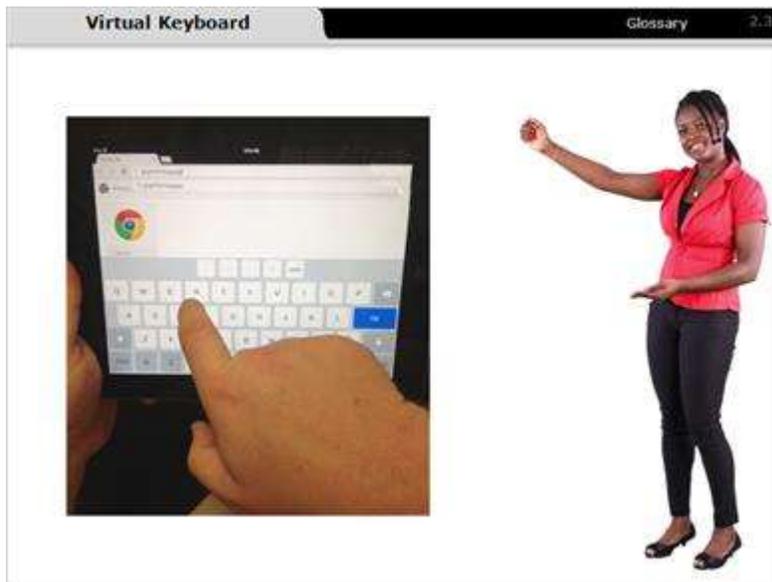
2.2 Navigation



Notes:

One difference between a mobile device and a laptop or desktop is the mouse or touchpad. To interact with a mobile device, you use your finger or a stylus instead of a mouse pointer. The stylus is a pen-like device used to make selections, draw, or navigate on a touch screen.

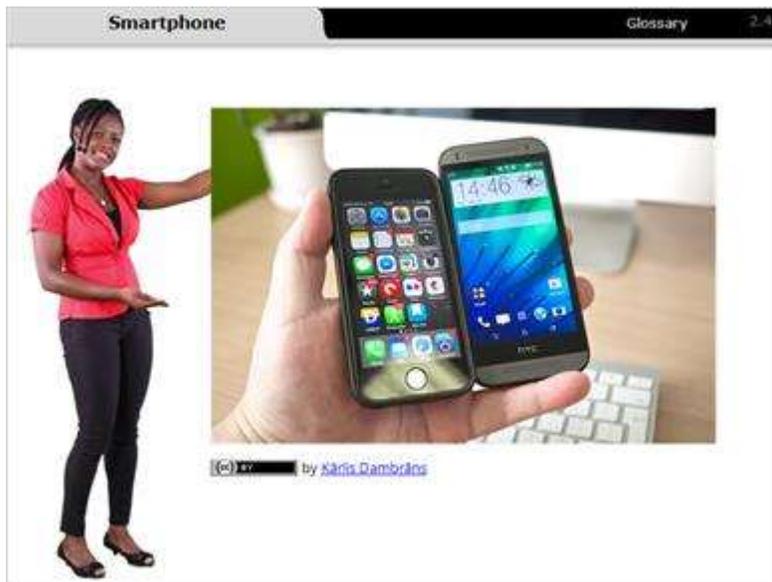
2.3 Virtual Keyboard



Notes:

Most mobile devices also have a virtual keyboard that appears when you touch a spot on the screen where you need to enter text. The keyboard on a mobile device is similar to the external keyboard on a desktop computer except the mobile device's keyboard only appears when you need it and you type directly on the screen.

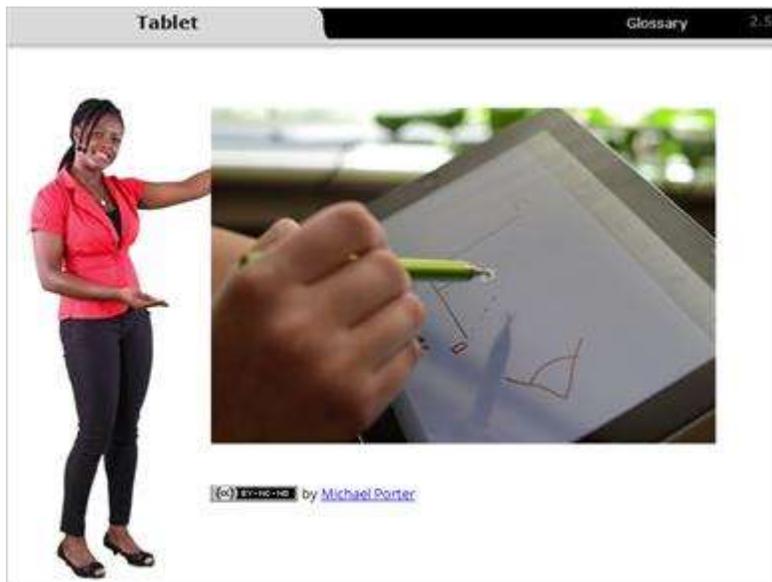
2.4 Smartphone



Notes:

A smartphone is a powerful mobile device that runs many different computer programs or applications in addition to providing phone service. Smartphones can be used for browsing the Internet, watching videos, playing games, reading e-books, and using email.

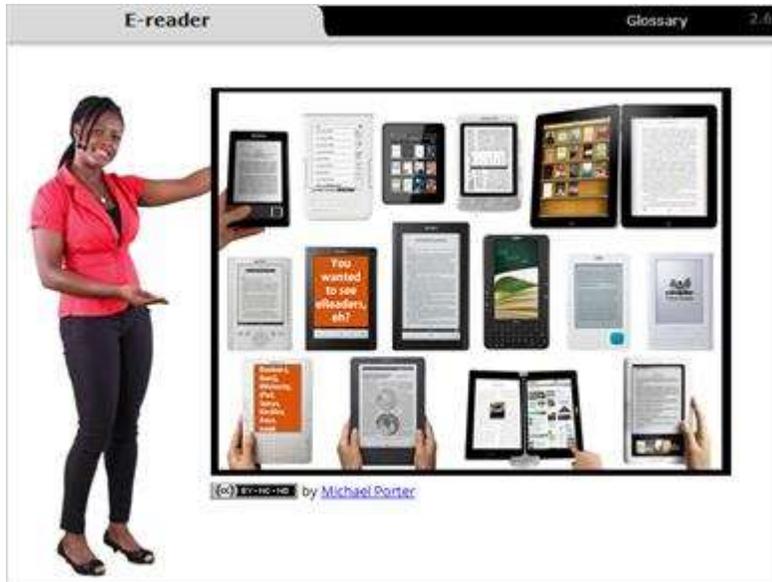
2.5 Tablet



Notes:

A tablet is a mobile computing device. It contains a touchscreen, uses a virtual keyboard, and is very light and portable.

2.6 E-reader



Notes:

The last type of mobile devices we will learn about are e-readers. E-readers are a type of tablet computer created mainly for reading e-books.

There are a variety of e-readers. Some are black and white only and are designed to look like the page of a book. Some e-readers have an LCD screen, which allows the use of color, but they are more difficult to read in direct sunlight. E-readers with a color LCD screen usually allow the user to perform more tasks and are more like a tablet computer.

3. Computer Systems

3.1 Introduction



Notes:

A computer is a system of many parts working together.

The physical components, which you can see and touch, are called hardware. The set of instructions that tells the hardware what to do is called the software. The computer system is made up of both hardware and software. You need both hardware and software for a computer system to work.

3.2 Hardware



Now let's look at hardware in more detail. Hardware are the parts of a computer you can see and touch, including the case and everything inside it. Click on each item to identify the internal and external hardware components in a computer system.

1. Monitor: The monitor is an electronic visual display.
2. Motherboard: The motherboard is the main printed circuit board found in computers. It holds many of the crucial electronic components of the system, including the central processing unit (CPU) and memory.
3. CPU (Microprocessor): The CPU is often referred to as the "brain" of your computer. This tiny, rectangular chip carries out the instructions of a computer program by performing the basic arithmetic, logical, control, and input and output operations specified by the instructions.
4. Random Access Memory (RAM): RAM is a form of computer data storage. RAM storage doesn't keep its data when powered off.
5. Expansion Card: The expansion card is a printed circuit board that can be inserted into an electrical connector or expansion slot on a computer motherboard to add functionality to a computer system.
6. Power Supply Unit: The primary function of a power supply is to convert one form of electrical energy to another. Because of this, power supplies are sometimes referred to as electric power converters.
7. Optical Disk Drive: The optical disk drive uses laser light, or electromagnetic waves, to read or write data to, or from, optical discs. Optical drive is the generic name but the drives are specifically described as "CD," "DVD," or "Blue-Ray."
8. Hard Disk Drive: The hard disk drive is a data storage device used for storing and retrieving digital information. An HDD retains its data even when powered off.
9. Mouse: The mouse is a pointing device that communicates with the computer.
10. Keyboard: A computer keyboard is a typewriter-style device, which is used as a text entry interface to type text, numbers, and commands to the computer's operating system.

3.3 Keyboard



Notes:

Now let's look at one very important piece of hardware, the keyboard. It's a device that allows you to select buttons and keys to enter information into the computer. It's the primary way you enter information to create a document such as a resume or fill out an online application for college.

There are different parts to the standard keyboard. Click on each label to identify each one's purpose.

Main or Alphanumeric keys. These keys include the same letters, numbers, punctuation, and symbols found on a traditional typewriter.

Control keys. These keys are used alone or in combination to perform specific actions. The most frequently used control keys are CTRL, ALT, the Windows logo key, and ESC.

Navigation keys. These keys are used for moving around in documents and webpages and allow you to edit text. They include the arrow keys, HOME, END, PAGE UP, PAGE DOWN, DELETE, and INSERT.

Function keys. The keys are labeled as F1, F2, F3, up to F12. The purpose of these keys differs from program to program.

Numeric keypad. The numeric keypad is handy for entering numbers quickly. The keys are grouped together in a block like a conventional calculator or adding machine.

3.4 Special Keys 1



Notes:

There are a few specific keys you need to be familiar with. Click on each label to investigate the purpose of each key.

Space Bar -This bar adds a blank space.

Shift - This key is used for either capitalizing a letter or accessing the symbols above the number and punctuation keys. When you hold down the shift key, either the capital letter is typed or the icon on the top of the key is typed.

Backspace (on some keyboards this is delete) - Use this button if you want to delete something.

Enter - You press enter to submit something or go to the next step. For example, you press enter to go to the next line in a word processing document or go to a website after typing in the address.

Caps Lock - When you press this button, everything you type is capitalized. Press it again to turn it off and go back to typing lower case letters.

Tab - This button is used to indent text in a document or an email. You can also use it to jump to the next field in a form.

Control Key - This key alters the function of another key.

3.6 Software



Notes:

There are two main categories of software: application and system.

Application software lets you create a document, browse the Internet, or play a game.

System software, or operating system software, is used by your computer to manage hardware, application software, and all communications.

3.7 Application Software



Notes:

An application is software that helps you to perform specific tasks.

Some examples of application software are:

- Word processing. Microsoft Word is used to create documents such as resumes, cover letters, and homework assignments.
- Web browsers allow you to search the Internet and access websites.
- And computer games used for entertainment or learning.

3.8 System Software



Notes:

System software, or operating system software, is used by your computer to manage hardware, application software and all communication. The three most common operating systems are Microsoft Windows, Apple Mac OS X, and Linux.

Each operating system has a different look and feel, but most of the basic principles are the same.

3.9 Practice Computer System

Practice Glossary 3.9

True or False:
You need both hardware and software for a computer system to run.

True

False



Notes:

Select the correct response to the question.

3.10 Practice Keyboard

Practice Glossary 3.10

Place your mouse cursor in the text box below and type the word "keyboard".



Notes:

Place your mouse cursor in the text box and type the word "keyboard" in the text box.

3.11 Practice Computer Systems



Practice Glossary 3.11

The monitor, computer tower, keyboard, and mouse are examples of:

Hardware

Software

Notes:

The monitor, computer tower, keyboard and mouse are examples of:

3.12 Practice Computer Systems

Practice Glossary 3.12



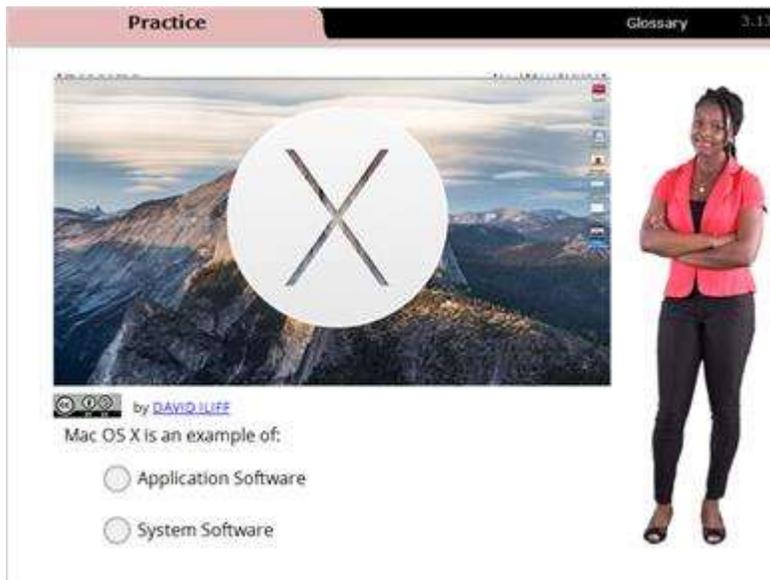
The screenshot shows a Google search page. At the top, the Google logo is centered. Below it is a search bar. Under the search bar are several thumbnails for various web pages, including 'Web Center 2016', 'Check! Playbook Editor', 'Twitter', 'Facebook', 'The Complete Guide to...', '20 Factor Head-Up Game', 'Bibi: The Queen of the...', and 'Google'. A quiz overlay is positioned on the right side of the page, featuring a woman with her arms crossed. The quiz text reads: 'A web browser is an example of:' followed by two radio button options: 'Hardware' and 'Software'.

Notes:

A web browser is an example of:

3.13 Practice Software

Practice Glossary 3.13



The screenshot shows a Mac OS X desktop environment. The background is a scenic mountain landscape. A large white circle with a black 'X' is overlaid on the center of the screen. Below the desktop image, there is a small icon and the text 'by DAVID LUFFE'. A quiz overlay is positioned on the right side of the page, featuring a woman with her arms crossed. The quiz text reads: 'Mac OS X is an example of:' followed by two radio button options: 'Application Software' and 'System Software'.

Notes:

OS X is an example of:

4. Review

4.1 Computer Parts



Notes:

Now you've learned to identify the parts of a computer:

- monitor or screen
- computer tower or computer case
- mouse or touchpad
- keyboard

4.2 Hardware/Software



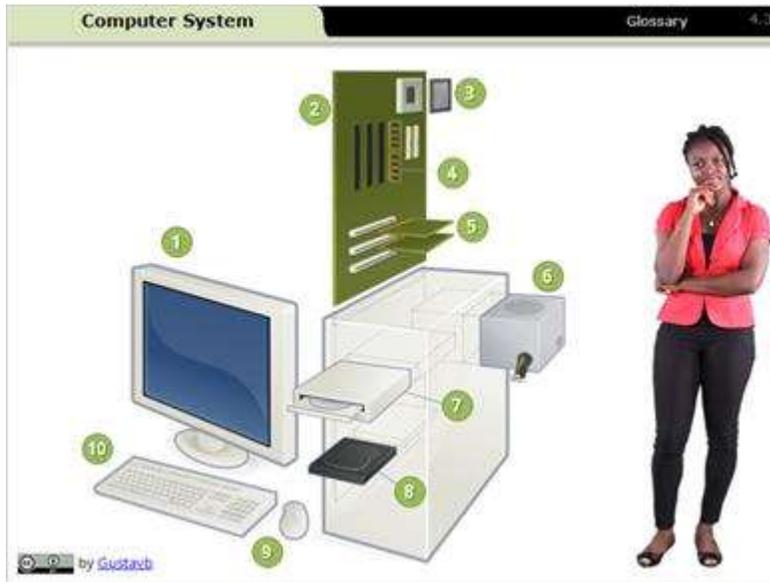
Notes:

Let's review what we've learned about hardware and software.

Hardware refers to the physical parts of the computer that can be touched and seen. They can be external, internal, or inside the computer case. Examples include the keyboard, CPU, and hard disk drive.

Software refers to the set of instructions that tells the computer what to do. It is categorized as application and systems software. Applications software is designed for completing a specific task like browsing the web using Internet Explorer. System software manages the computer hardware, application software, and all communications. Windows 7 is one example of an operating system.

4.3 Computer System



Now let's review the entire computer system in detail. Hardware refers to the computer parts you can see and touch including the case, everything inside it, as well as application and systems software. You need both hardware and software for a computer system to run.

1. Monitor: The monitor is an electronic visual display.
2. Motherboard: The motherboard is the main printed circuit board found in computers. It holds many of the crucial electronic components of the system, including the central processing unit (CPU) and memory.
3. CPU (Microprocessor): The CPU is often referred to as the "brain" of your computer. This tiny, rectangular chip carries out the instructions of a computer program by performing the basic arithmetic, logical, control, and input and output operations specified by the instructions.
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6. Power Supply Unit: The primary function of a power supply is to convert one form of electrical energy to another. Because of this, power supplies are sometimes referred to as electric power converters.
7. Optical Disk Drive: The optical disk drive uses laser light, or electromagnetic waves, to read or write data to, or from, optical discs. Optical drive is the generic name but the drives are specifically described as "CD," "DVD," or "Blue-Ray."
8. Hard Disk Drive: The hard disk drive is a data storage device used for storing and retrieving digital information. An HDD retains its data even when powered off.
9. Mouse: The mouse is a pointing device that communicates with the computer.
10. Keyboard: A computer keyboard is a typewriter-style device, which is used as a text entry interface to type text, numbers, and commands to the computer's operating system.

4.4 Mobile Devices



Notes:

Mobile devices are a type of hand-held computer designed to be portable and easy to use. Click on each device to review each one.

4.5 Virtual Keyboard



Notes:

Most mobile devices use a virtual keyboard that appears on the screen when you need to enter text.

4.6 Final Review



Notes:

Think about all the different types of computing devices.

Which type would be best for you?

- Do you need a computer device that is portable?
- Do you need a device that works as a phone too?
- What application and operating system software should it have?

5. Check Your Knowledge

5.1 Fill in the Blank

Fill in the Blank Glossary 5.1

A _____ computer is designed to be used in one location. It's the least portable type of computer.

e-reader

desktop

laptop

tablet

Notes:

Select the correct answer.

5.2 True/False

True/False Glossary 5.2

The mouse is used to move the mouse pointer around the screen on a desktop computer. You can use your finger to navigate on a tablet or smartphone screen.

True

False

Notes:

Select the correct answer.

5.3 Multiple Choice

Multiple Choice Glossary 5.3

Identify the main parts of the computer.
Select the radio button to identify each highlighted computer part.

- Monitor
- Keyboard
- Tower
- Mouse



The image shows a desktop computer system. On the left is a monitor with a yellow screen. In front of the monitor is a keyboard. To the right of the keyboard is a mouse. Behind the keyboard and mouse is a vertical tower case. The monitor is highlighted with a yellow border.

Notes:

Select the correct answer.

5.4 Multiple Choice

Multiple Choice Glossary 5.4

Identify the main parts of the computer.
Select the radio button to identify each highlighted computer part.

Monitor
 Keyboard
 Tower
 Mouse



The image shows a desktop computer system. On the left is a large monitor on a stand. In front of it is a keyboard. To the right of the keyboard is a yellow mouse. Behind the keyboard and mouse is a vertical tower PC case. A red circle highlights the mouse.

Notes:

Select the correct answer.

5.5 Multiple Choice

Multiple Choice Glossary 5.5

Identify the main parts of the computer.
Select the radio button to identify each highlighted computer part.

- Monitor
- Keyboard
- Tower
- Mouse



Notes:

Select the correct answer.

5.6 Multiple Choice

Multiple Choice Glossary 5.6

Identify the main parts of the computer.
Select the radio button to identify each highlighted computer part.

- Monitor
- Keyboard
- Tower
- Mouse



The image shows a desktop computer system. On the left is a large, silver monitor on a black stand. In the center is a yellow keyboard. On the right is a black tower PC case with a blue light on the front. In front of the tower case is a black mouse. The entire setup is on a white surface.

Notes:

Select the correct answer.

5.7 Fill in the Blank

Fill in the Blank Glossary 5.7

A _____ is an electronic device that processes information.

- monitor
- mouse
- computer
- keyboard

Notes:

Select the correct answer.

5.8 True/False

True/False Glossary 5.8

Microsoft Word and a Web browser are examples of:

Hardware

Software

Notes:

Select the correct answer.

5.9 True/False

True/False Glossary 5.9

Microsoft Word, Web Browsers, and computer games are examples of:

Application Software

System Software

Notes:

Select the correct answer.

5.10 Checkbox

Check Box Glossary 5.10

Which of the following are considered mobile devices? Check all that apply.

- e-reader
- smartphone
- desktop computer
- tablet

Notes:

Select the correct answer(s).

5.11 Fill in the Blank

Fill in the Blank Glossary 5.11

Identify the purpose of the monitor:

- It's a pointing device that communicates with the computer.
- It holds the parts that make the computer work and process information.
- It displays visual information including text and images.
- It's a data storage device that both stores and retrieves digital information.

Notes:

Select the correct answer.

5.12 Fill in the Blank

Fill in the Blank Glossary 5.12

A touchpad is:

- A pointing device that communicates with the computer.
- A form of computer data storage.
- The main printed circuit board found in computers.
- A device that displays visual information including text and images.

Notes:

Select the correct answer.

6. Conclusion

6.1 Conclusion

Conclusion Glossary 6-1

Congratulations.
You have completed the check your knowledge activity.



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Music  by [Jay Stulo](#)

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Restart

Notes:

Congratulations. You have completed the check your knowledge activity.

Use your mouse to click on the restart button if you would like to repeat this module.