

# Hardware

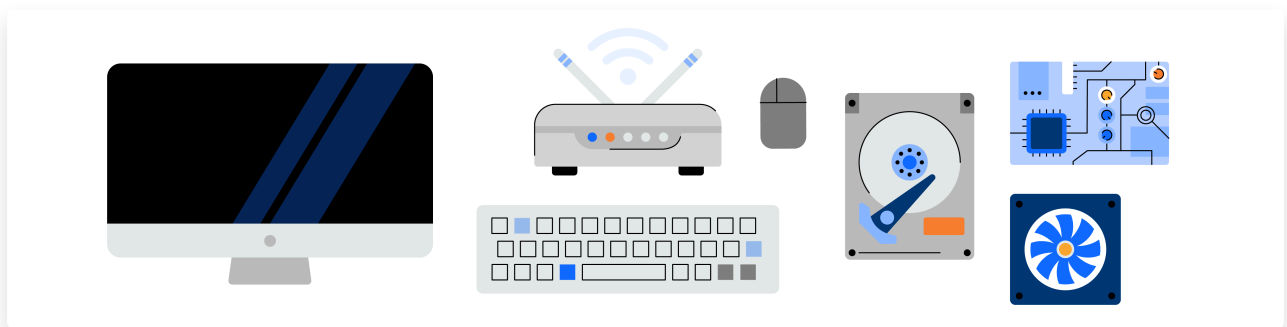
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## Textbook

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## Hardware

As you read the textbooks remember to read carefully and pay close attention to every word and sentence. Think deeply by asking yourself, "What is this trying to teach me?" or "How does this connect to what I already know?" Finally, be sure you grasp the main points of each section, truly understanding the big ideas!

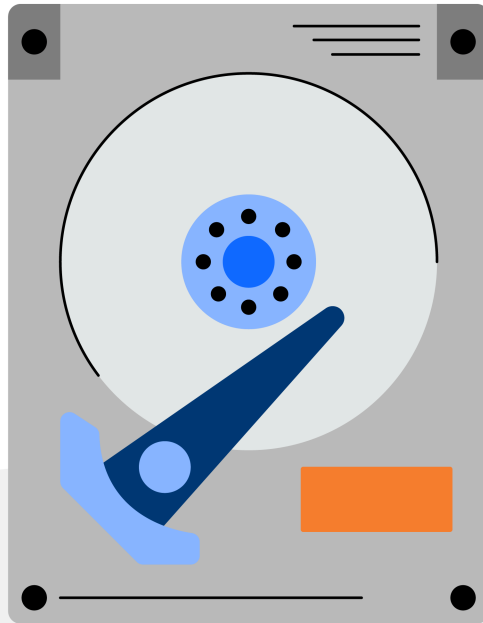


A computer consists of various components that work together. These components are categorized as either internal or external parts.

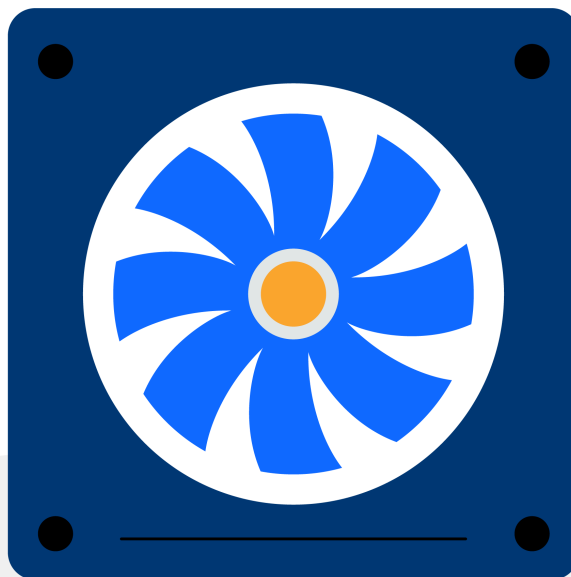
Internal parts are located inside the computer case. They operate to enable the computer's functions. External parts are connected to the computer externally and facilitate user interaction.

Common internal parts include:

- **Circuit Board (Motherboard):** This component connects the electronic parts of a computer. It is essential for the computer's operation.
- **Memory (RAM)/Hard Drive:** RAM temporarily stores data for immediate use by the computer. The hard drive stores files and programs, such as applications and images, for long-term access.



- **Fan:** Fans are installed inside computers to manage internal temperature. Computer operation generates heat, and fans help maintain appropriate temperatures to prevent hardware damage.



Common external parts include:

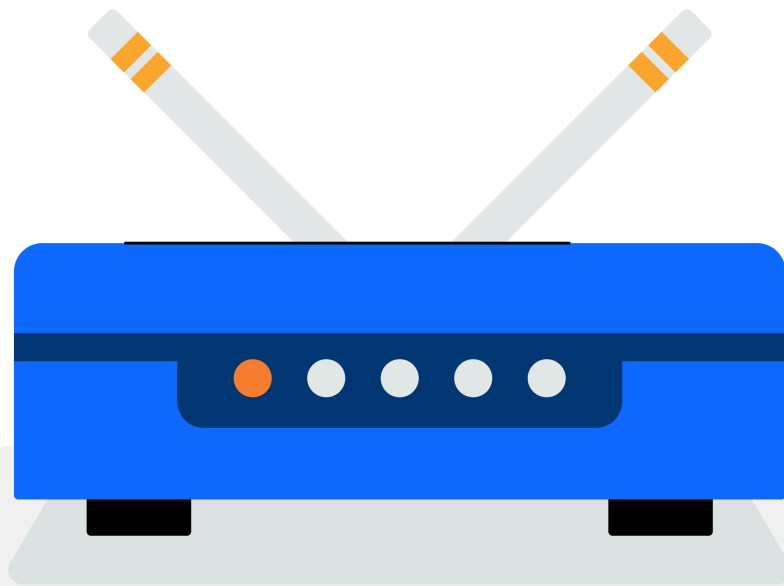
- **Mouse:** This device is used to select items on the display screen.



- **Printer:** This device produces paper copies of digital content from the display.



- **WiFi Router:** This device connects the computer to the internet.



## Critical Thinking Questions

1. Describe the potential impact on a computer's operation if an internal part, such as the fan or the circuit board, ceased to function.
2. Explain the role of the WiFi router in connecting a computer to the internet. How would typical online activities be affected without this device?

## Questions (5)

### 1. Which part of a computer is known as the motherboard?

MULTIPLE CHOICE

Choose the correct answer:

- A. Hard Drive
- B. Memory
- C. Circuit Board

### 2. What is the main purpose of a fan inside a computer?

MULTIPLE CHOICE

Choose the correct answer:

- A. To make the computer run faster
- B. To display images on the screen
- C. To keep internal parts cool

MULTIPLE CHOICE

**3. Which external part of a computer is used to click things on the screen?**

**Choose the correct answer:**

- A. Printer
- B. WiFi Router
- C. Mouse

**4. True or False: The role of Memory/RAM in a computer is to help the computer remember things while it is turned on.**

MULTIPLE CHOICE

**Choose the correct answer:**

- A. True
- B. False

**5. True or False: A WiFi Router is used for making paper copies of things displayed on the computer screen.**

MULTIPLE CHOICE

**Choose the correct answer:**

- A. True
- B. False

## Games (3)

### 1. Internal vs External Parts Category Game

Full Screen

Audio

Instructions

Answer Key




Pause

Clear All

Check Order

Attempts: 0

Internal Parts			External Parts	
Printer	Mouse	Wifi router		
Circuit board	CD Drive	Projector		
Hard Drive (memory)	Fan			



### 2. Hardware Typing Game

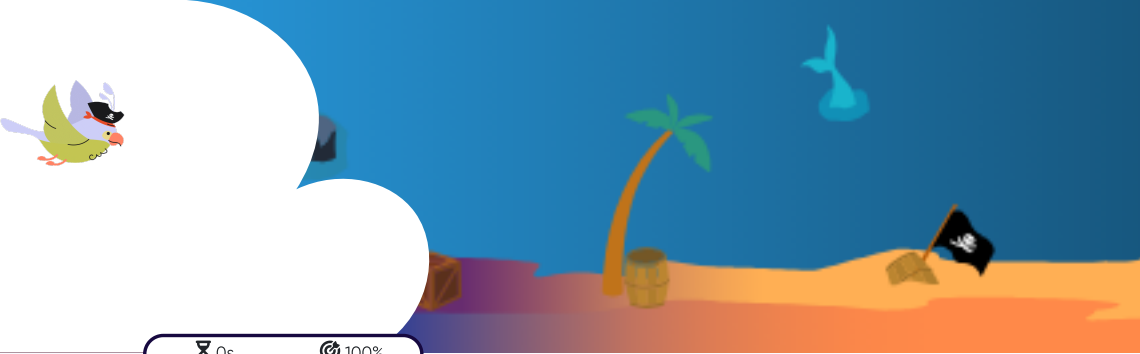

Full Screen

Audio

Instructions

Restart

Pause



0s 100%

Computer hardware are r

3. Hardware and Software Matching Game

Full Screen

Audio

Instructions




Answer Key




Pause




Clear All

Check Matches

Attempts: 0







Fan

Printer

Mouse

Motherboard

Wifi Router

memory/hard drive

## Answer Keys & Solutions

### Questions

#### 1. Which part of a computer is known as the motherboard?

MULTIPLE CHOICE

**Correct Answer:**

- A. Hard Drive ✗ Incorrect
- B. Memory ✗ Incorrect
- C. Circuit Board ✓ Correct

#### **Explanation:**

It connects all electronic parts together and is essential for a computer to function.

#### 2. What is the main purpose of a fan inside a computer?

MULTIPLE CHOICE

**Correct Answer:**

- A. To make the computer run faster ✗ Incorrect
- B. To display images on the screen ✗ Incorrect
- C. To keep internal parts cool ✓ Correct

#### **Explanation:**

It prevents overheating that could damage the computer's hardware.

#### 3. Which external part of a computer is used to click things on the screen?

MULTIPLE CHOICE

**Correct Answer:**

- A. Printer ✗ Incorrect
- B. WiFi Router ✗ Incorrect
- C. Mouse ✓ Correct



**Explanation:**

It helps you interact with what you see on the monitor.

**4. True or False: The role of Memory/RAM in a computer is to help the computer remember things while it is turned on.**

MULTIPLE CHOICE

**Correct Answer:**

A. True

✓ Correct

B. False

✗ Incorrect

**Explanation:**

Think about what happens to the information when you turn off a computer.

**5. True or False: A WiFi Router is used for making paper copies of things displayed on the computer screen.**

MULTIPLE CHOICE

**Correct Answer:**

A. True

✗ Incorrect

B. False

✓ Correct

**Explanation:**

It's a device commonly found in offices.

**Games****1. Internal vs External Parts Category Game****Category Solutions:****Category 1: Internal Parts**

- Circuit board
- Fan
- Hard Drive (memory)
- CD Drive

**Category 2: External Parts**

- Printer
- Wifi router
- Mouse
- Projector

**Scoring:**

- Gold: 1 attempts or fewer
- Silver: 2 attempts or fewer
- Bronze: 3 attempts or fewer

*Students must sort items into their correct categories.*

## 2. Hardware Typing Game

*Typing game - no answer key needed. Students practice typing the provided content.*

## 3. Hardware and Software Matching Game

**Matching Game Solutions:**

1.  Computer Fan →

2.  motherboard →

3.  hard drive →

4.  wifi router →

5.  Printer →

6.  mouse →

*Students must drag items from the left to match with corresponding items on the right.*