

Identifying Computer Hardware

What Is BIOS/UEFI?

BIOS (Basic Input/Output System) is the older style of firmware on many PCs. **UEFI (Unified Extensible Firmware Interface)** is the newer style on modern computers. They both do basically the same jobs: they wake up your computer's hardware before starting your OS (like Windows).

Important

- **Be Careful:** It's easy to change something by accident that could stop your computer from booting normally.
- **Write It Down:** If you do change a setting, write it down or take a photo so you can switch it back if you need.
- **Saving vs. Not Saving:** Look for "Save & Exit" vs "Exit Without Saving" options. If you're not sure about a change, pick "Exit Without Saving" to play it safe.

Getting Into Your BIOS/UEFI

1. **Restart or Power On** your computer.
2. Look for a prompt on your screen (like "**Press F2 for Setup**" or "**Press Del to Enter BIOS**").
3. **Tap the Key Right Away:** Common ones are **Delete**, **F2**, **F12**, **Esc**, or **F10**. Sometimes you need to hit the key multiple times. If you're not sure, a quick Google of your computer model can help.

It might take a few tries to get the timing right.

Navigating the BIOS/UEFI

- **On older PCs**, use your arrow keys to move around, **Enter** to select, and **Esc** to go back.
- **On newer menus**, you might be able to use your mouse.
- **Look for Tabs or Sections** with labels like "Main," "Advanced," "Boot," or "Security."
- **Saving Settings:** Usually found under a "Save & Exit" tab or by pressing a special key.

Settings You Might See

1. **Boot Priority:** Controls which drive or device starts up first.
2. **Hardware Monitor:** Shows things like CPU temperature and fan speeds.
3. **Security Options:** Might include passwords, Secure Boot, or encryption features.
4. **Time and Date:** This is where your computer's internal clock is set.
5. **Advanced Settings:** CPU speeds, virtualization, and other performance tweaks.
Proceed with caution here if you don't know what you're doing!

Practice

Activity 1: Find Your BIOS/UEFI Details

1. **Go into the BIOS/UEFI** using the steps above.
2. **Spot the version** or name of the manufacturer (like "Dell," or "HP").
3. **Write it down** or take a photo.
4. **Exit without saving any changes.**

Activity 2: Check Out the Boot Order

1. **Re-enter the BIOS/UEFI.**
2. **Go to the "Boot" tab or section.**
3. **Observe the order** of devices (Hard Drive, USB, DVD, etc.).
4. **Make a note** (or screenshot) but don't change anything yet.
5. **Exit without saving.**

Activity 3: Look at Hardware Monitors

1. **Get back into the BIOS/UEFI** again.
2. **Find "Hardware Monitor," "PC Health," or "Status".**
3. **Notice the CPU temperature or fan speeds.**
4. **Write down** what you see (e.g., "CPU temp is 45°C").
5. **Exit without saving.**