

Get To Know Your Technology

| COMPONENT | DEFINITION | KEY CONSIDERATION | MINIMUM STANDARD |
|---|--|---|---|
| CPU (Central Processing Unit) Also known as: processor | This is your computer's brain, and its function — as you might imagine — is to process information. Usually, a faster processor means a faster computer. | Performance, which is based mostly on <ul style="list-style-type: none"> ● Number of cores (single, dual, quad, and so on). ● Processor speed or "clock speed," which is measured in gigahertz (GHz). | Dual-core processor, with mid-range clock speed (2.6 GHz) |
| RAM (random access memory) Also known as: memory | RAM is used to temporarily store information while your computer is running. More memory allows your computer to run more quickly, up to a point.* | Amount of memory, which is measured in megabytes (MB) and gigabytes (GB). There are 1,024 megabytes in a gigabyte. | 4 GB |
| Hard Drive Also known as: hard disk, hard disk drive (HDD), or internal drive | The hard drive is where most of the information on your computer is stored. There are 2 main types of drives: <ul style="list-style-type: none"> ● Traditional drive is a spinning disk attached to a platter. Because it has these rapidly moving parts, a hard drive is susceptible to mechanical failure. ● A Solid State Drive does not have moving parts and therefore is less likely to have mechanical problems. SSDs are also faster + quieter (read: more expensive). | Disk size: the amount of storage space on the disk. | 250 GB storage capacity |
| Storage Also known as: hard-disk storage | The amount of information (files, data, software, photos, video, and so on) your computer can store. | Amount of storage, usually measured in GB. | See Hard Drive, above |

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| <p>Networking</p> | <p>How your computer connects to the Internet or networked devices.</p> <ul style="list-style-type: none"> ● An Ethernet port lets you plug your computer into a router for "wired" access. ● A wireless adapter or wireless card enables your computer to connect to the Internet and other devices wirelessly. ● Bluetooth is a technology that allows your computer to wirelessly connect to other devices (but typically not directly to the internet). | <p>Wired and wireless connection capability.</p> | <p>Ethernet port or adapter A wireless card or adapter</p> |
| <p>Ports</p> <p>Also known as: output ports or interface ports</p> | <p>Device ports: how your computer connects to other devices, like a keyboard, mouse, printer, digital camera, or external hard drive. Different devices use different cables to connect to different kinds of ports. The most common ports and cables are:</p> <ul style="list-style-type: none"> ● USB (Universal Serial Bus) — the current standard is USB 2.0, which provides a faster connection than the older USB 1.1 standard. ● Firewire (also known as IEEE 1394, iLink) provides an even faster connection for high-speed data transfer. <p>Audio and video ports: How your computer connects to speakers and external displays, like a monitor or television screen. There are different kinds of outputs, including:</p> <ul style="list-style-type: none"> ● VGA (analog) output. This is included on almost all desktops. ● DVI (digital visual interface). This carries only video, not audio. ● HDMI (high-definition multimedia interface). This carries both audio and video. Mini HDMI ports are often used on portable devices. ● Like HDMI, DisplayPort and Mini DisplayPort carry both audio and video. | <p>What devices you will connect to your computer.</p> | <p>Device ports: Several USB 2.0 ports</p> <p>Audio and Video Ports: VGA port, HDMI</p> |

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| <p>Graphics Card Also known as: Graphics Processing Unit (GPU)</p> | <p>The graphics card or chip is what allows your computer to process and display visual information (text, images, video, and basically everything you see on your computer screen).</p> <p>There are two main types of graphics processors.</p> <ul style="list-style-type: none"> ● Integrated or on-board graphics cards are built into your computer, and they share your computer system's main memory. ● A dedicated graphics card has its own, separate memory. | <p>Amount of system memory (RAM), and tasks you are performing</p> <p>If you have at least 2 GB of RAM, integrated graphics should be sufficient in most cases.</p> <p>If you work with a lot of digital video, you will probably need more RAM, a dedicated graphics card, or both.</p> | <p>Integrated graphics: fine for most everyday office functions.</p> <p>Dedicated graphics card: only needed if you're planning to work with a lot of digital media.</p> |
| <p>Optical Drives Also known as: removable media</p> | <p>Optical drives let you read and record (or write) to CDs, DVDs, and Blu-rays. A "burner" or "recorder," usually labeled "RW," allows you to record or write information to discs.</p> <p>Most drives are labeled with the type of discs they are compatible with, as well as whether they can record or write to a disc or only play or read it.</p> <ul style="list-style-type: none"> ● Devices labeled "ROM" can only play discs; they cannot write to them. ● Devices labeled "RW" allow you to write information to discs. ● For example, a DVD-ROM/CD-RW can play DVDs and can both play and record to CDs. | <ul style="list-style-type: none"> ● What media you are using (CD, DVD, and so on) ● What devices can and need to read that data | <p>Functioning DVD-ROM/CD-RW device</p> |

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| Peripherals | <p>Electronic equipment connected by cable (or wireless integration) to your computer's CPU.</p> <ul style="list-style-type: none"> ● Monitor or screen ● Keyboard ● Pointing devices (mice, trackballs, touch pads) ● Printers, scanners, and other optional devices | <p>For monitors, the key considerations are:</p> <ul style="list-style-type: none"> ● Screen size. ● Display resolution is based on the number of pixels (the little dots that make up the image you see on-screen) that can be displayed; more pixels means a sharper display. | <p>Desktop monitor: 15" monitor (measured diagonally), 1024x768 screen resolution</p> <p>Laptop screen: size will depend on individual needs; 1024x768 screen resolution</p> <p>Fully functioning keyboards and pointing devices</p> |
| Battery and Power Consumption | <p>When not plugged in to an outlet, laptops use a rechargeable battery for power.</p> <ul style="list-style-type: none"> ● Some laptops can have an extended battery added. This makes the laptop bigger and heavier, but significantly extends battery life. ● Some laptops have batteries that cannot be removed, which makes them more costly to replace when the battery wears out. | <p>Battery life: how long the battery retains power after charging</p> | <p>No specific recommendation</p> |
| Size or "Form Factor" | <p>Desktops, laptops, and tablets come in different sizes. Some desktop terms you may hear:</p> <ul style="list-style-type: none"> ● Full-size: these computers are encased in a standard (sometimes bulky) "tower" case. ● Compact: smaller than full-size towers (sometimes called "minitowers"). <p>All-in-one: the computer and the monitor are all one piece.</p> <p>Laptop terminology:</p> <ul style="list-style-type: none"> ● While we use the term "laptop" in this guide, "notebook" means the same thing. ● A subnotebook is a lightweight laptop computer. Macbook Airs and Intel Ultrabooks are in this category. | <p>Unless you will be travelling a lot, size is not usually a major factor when choosing a computer.</p> | <p>No specific recommendation</p> |