

# TECH TIPS

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## What to Consider When Buying a New Laptop

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**W**indows 11 and Mac OS12 (Monterey) are coming – you may need a new laptop.



Microsoft announced the debut of Windows 11 for PCs, coming this fall. Windows 11 will not be compatible with computers older than 2017, unless they are modified to add a TPM 2.0 security chip.

New computers currently under production should be Windows 11 ready. Microsoft will offer a free software update from Windows 10 to Windows 11, starting in late 2021 or early 2022.

For Mac users, MacOS12 is currently in Beta testing but will soon be out, and the Apple M1 chip, also known as “Apple Silicon,” promises faster and more powerful operations in the latest model laptops and desktop computers.

So here are some considerations if you’re in the market for a new laptop to prepare for these new systems, or if you’re just ready to upgrade.

### Random-access memory (RAM)

If you’re just using email, or only opening one or two tabs in your web browser, and if you don’t mind how long it takes for the pages to load, you could get away with less than 8 gigabytes (GB) of RAM.

However, if you want to use more apps than just

email or want to browse the internet more heavily, you’ll need at least 8 GB of RAM. That will also allow whatever you’re doing to load quickly and run without delays. If you want to edit videos or do complex calculations quickly, then consider buying 12 to 16 GB of RAM.

### Hard-drive storage

Hard drives identified with the letters “HD” are an older technology, that is slower and more prone to failure than solid-state drives (SSD), which are faster and have no moving parts. You can also attach an external SSD to a USB port for extra storage to supplement what is included in your computer.

A large capacity external SSD with 1 or more terabytes (TB), can be used to back up your programs and data, and be stored in a separate location than your laptop for added security.

Modern operating systems, pictures, music files and videos can take up a lot of storage space, so you should consider at least 256 GB of storage. You can get away with less hard-drive storage in the laptop if you also buy an external SSD.

If you create a lot of documents, and want to save pictures and video clips, then consider a 500 GB hard drive. If your hobby is photography or video editing, then you may consider one or more terabytes (1 TB = 1,000 GB) of hard-drive storage.

### Central processing unit (CPU)

The CPU is the brains of the computer. Most of today’s laptops use an Intel CPU chip designated as i3, i5, i7, or i9 to power both Apple and PC laptops. Later Intel Core-i series CPU generations have improved designs and more computing power, which accounts for the price differences for the same chip designation number.

Apple offers a new M1 chip (also known as “Apple silicon”), but most of today’s PC software appli-

cations are designed to run on the Intel CPU chips. Stand-alone copies of Microsoft Office don’t currently run on the M1 chip, but Microsoft Office 365 (the online subscription version) has recently been updated to run on the M1 chip.

The bare minimum for low-end, cheaper computers is the Intel i3. An i5 chip is better for more complex applications and faster speeds. Video editing or large complicated business calculations may require an Intel i7, or the high-end i9 chip.

### Other considerations

If you take along a laptop when you travel, you may want to keep your laptop weight under three pounds. Screen size also affects weight – smaller screens are typically 9 – to 12-inches in diagonal, and the smaller the screen, the lighter the laptop. However, larger screens are much easier on older eyes. If you’re not planning to carry it around, go for a 15.6 – or 17-inch screen.

When traveling (or using your laptop anywhere outside your home), you may realize a 30 percent reduction in the advertised battery life (if they say 10 hours, you will probably get seven). Some batteries in the lighter, thinner laptops are not user-replaceable, nor can you carry a spare.

Most new laptops now come with USB-C ports. This means that any existing USB plug-ins you may have, like flash drives, may need to be replaced or require a USB-C adapter, which are relatively cheap and available on Amazon.

Most laptops no longer come with an optical drive (CD-RW or DVD drive). However, you can buy an external DVD for around \$50.

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