COMPUTER AND TECHNOLOGY BUYING GUIDE

Work Backwards

Buying new technology can be overwhelming, but working backwards to figure out what you need will help narrow down your search. When shopping for computers, ask yourself:

- What am I going to use this computer for?
- What kind of programs do I need?
- Where am I going to use it?
- How much money am I willing to spend?

Black Friday

This is the perfect time to shop for new technology, since many items are discounted during the holiday season.

Resources:

- bestblackfriday.com
- ♦ blackfriday.com
- theblackfriday.com
- ♦ bfads.net
- thewirecutter.com

Type of Computer

- Desktop—not mobile, requires monitor or TV, easier to upgrade or repair, better performance for laptop price equivalent
 - All-In-Ones—desktops with the computer "built into" the screen, not mobile, often touch screen
- Laptop—mobile, screen sizes from 11" to 17", more expensive to repair
 - Two-In-Ones—laptops with touch screens that fold 360° into a tablet
- Tablets—mobile, use touch screen, can include keyboard mount or accessory, can only use programs from the app stores

Operating Systems						
	Computers	Tablets	Brands			
Microsoft	Windows 10	Windows 10 Mobile	Many—HP, Asus, Dell, etc.			
Apple	MacOS High Sierra	iOS 11	Apple			
Google	ChromeOS	Android OS	Many—Samsung, Lenovo, etc.			

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Computer Stats

- ♦ Hard Drive—how many files (photos, documents, etc.) and programs your computer can store
 - ♦ Hard Disk Drive—traditional drive with mechanical parts; stores more but is slower
 - ♦ Solid State Drive—drive that has no moving parts; stores less but much faster
- ◆ RAM—"Random Access Memory" affects the speed of your computer and how well it multi-tasks
- Processor (CPU)— responsible for executing programs and affects the computer's speed
- Graphics Card—provides the display quality of a computer
 - ♦ "Onboard Graphics"—graphics card is built into the motherboard, average quality
 - ♦ "Dedicated Graphics"—computer has a separate graphics card, better quality than onboard graphics

	Only Use Internet	Office Worker	High End Performance
Hard Drive Storage	32 GB **Cloud Storage	250-500 GB	500 GB to 1 TB
Hard Drive Type	Any	Any	Solid State Drive (SSD)
RAM	4 GB	4 GB	8 GB or more
Processor	i3 (or less)	i3 or i5	i7
Dedicated Graphics	No	No	Yes

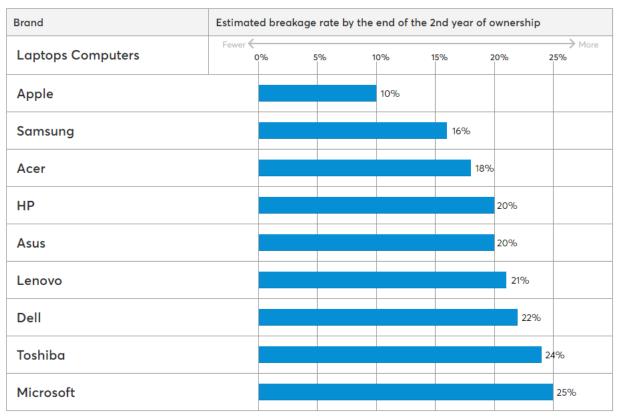
Cloud Storage

Many computers (like Chromebooks) are moving to a "cloud based" system. Cloud based computers have less storage (32 GB or less) but will have cloud services integrated in the file system. All photos, docs, etc. will be saved to the cloud.

Microsoft Office	Google Suite	Apple iWork	
\$70+ for subscription	Free, web-based	Free with Apple products	
Microsoft Word	Google Docs	Pages	
Microsoft Excel	Google Sheets	Numbers	
Microsoft PowerPoint	Google Slides	Keynote	

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Brand Reliability



Source: 2017 Winter Product Reliability Survey, Consumer Reports National Research Center.

Smartwatches

A smartwatch is a device that connects with your smartphone via Bluetooth that will provide notifications and fitness tracking. Most smartwatches have a touch screen, but there are "hybrid" smartwatches that look like a standard analog clock with fitness tracking features (i.e. counting steps).

Further resources: tinyurl.com/ybyx6qtu

Apple Watch	Android Wear	Samsung Wear	Fitbit
Only for iOS	iOS and Android	iOS and Android	iOS and Android
 "Sport" and "Nike" edition for fitness \$300+	Huawei, LG, Asus, Moto 360, Samsung\$150+	Gear Fit for fitness\$180+	Primarily for fitness\$130+

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Virtual Assistants (or AI Assistants)

A Virtual Assistant, sometimes called an AI (Artificial Intelligence) Assistant, is a smart device that acts as a hub to control other smart devices. The Virtual Assistant has a microphone and speakers so users can communicate and speak commands to the Virtual Assistant. Virtual Assistants are activated with a specific phrase or name: "Alexa," "Ok Google," "Hey Siri." Virtual Assistants are meant to be connected to Wi-Fi and offer basic searching functions. They can be connected to smartphones and help users initiate calls and texts. They can also be connected to and control other household items like LED lights and TVs.

- Amazon Alexa—Amazon's personal assistant is named Alexa. Alexa is available on the Amazon Echo, Echo Dot, Echo Spot, and Echo Show.
- **Google Home**—Google's personal assistant is called Google Assistant. Google Assistant is available on the Google Home, Google Home Mini, and Google Max.
- Apple HomePod—Apple's personal assistant is named Siri. Siri is available on the Apple HomePod.

Further resources: tinyurl.com/zxn8x9y

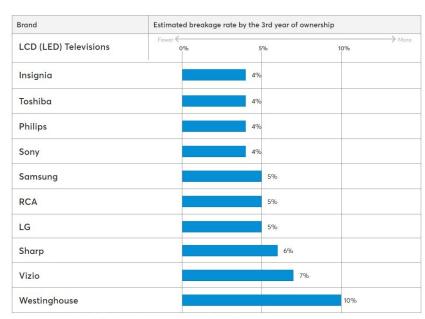
Televisions

TV's are another big ticket item that are heavily discounted during Black Friday and the Holiday Season. Smart TVs are newer to the market and are televisions with apps installed. Many smart TVs will have Netflix,

Hulu, and Amazon Prime pre-installed. In some cases, the smart TV will allow you to install further apps from the smart TV's app store. Consumers still need to pay for their Netflix, Hulu, or Amazon Prime services, and will sign in to the app with their accounts.

Things to consider when buying:

- Size of TV
- Smart or not
- Number of HDMI ports
- 4K, 1080p, or 720p



Source: 2017 Winter Product Reliability Survey, Consumer Reports National Research Center

