

# Disposing of Electronics

*This information is presented as general purpose suggestions and the effects may differ on each device or based upon specific downloads done to each device. The County of York assumes no liability to unintended results this may have on your specific device and will not assist in any issues that may arise from these disposal tips. This is not an all-inclusive list of all software options available, simply a partial list of some options for the reader to further research for what might work best for them.*

## Removing your Information

One potential avenue for hackers to obtain your personal information is through “dumpster diving”. Sometimes criminals go through the trash in search of old electronics, but usually this comes in the form of criminals buying used electronics that were not properly wiped and the original owner’s information is still on it. If you simply delete a file and remove it from your Recycle Bin, it is still stored on your computer’s hard drive and can usually be recovered very easily by easily accessible software. Physical destruction of the device is one option to make your data inaccessible, however many of the electronic components shatter (creating a safety hazard) or can prove pointless unless you specifically damage the component storing the actual information. The guide below will give you some strategies to delete the information through software before you physically dispose of the hardware. **WARNING:** This process deletes the information. All data you want to keep should be backed up in another location, failure to do this will result in loss of your data and settings! Some of these processes, like for “Windows computers”, leave the PC in a state that cannot be booted without additional steps outside the scope of this document, this is intended for a quick process to securely delete your information only. If you want a clean reinstall of your information (such as if your system was compromised) please see a well-known reputable, local IT company.

## Windows computers

1. Backup all data you need to keep, especially photos and documents!
2. Download DBAN <https://dban.org/> and burn it to a CD
3. Boot your PC from DBAN CD (usually insert CD, reboot, and press “delete” or an “F key” (at the top of the keyboard) during the black screen with white text, which is where you will find the specific key combination for your computer
4. Press “Enter” to start DBAN in interactive mode
5. Use “J” and “K” keys to highlight the hard drive and “Space” to select it
6. Press “F10” key to begin secure erase

Reference: <http://home.bt.com/tech-gadgets/computing/windows-10/how-to-wipe-your-pc-with-windows-10-11364002707321>

Reference: <https://www.techadvisor.co.uk/how-to/windows/how-securely-delete-files-in-windows-10-3675546/>

## Macintosh computers

1. Backup all data you need to keep, especially photos and documents!
2. Sign out of iTunes. Inside iTunes “Account” | “Authorizations” | “Deauthorize this Computer”
3. Sign out of iCloud “Apple” Menu | “System Preferences” | “iCloud” | “Sign Out”
4. Sign out of iMessage. In Messages app “Messages” | “Preferences” | “Accounts” | choose your account | “Sign Out”
5. Unpair Bluetooth devices. “Apple” Menu | “System Preferences” | “Bluetooth” | hover over the device | click the remove “X” button | “Remove”
6. Erase MacOS.
  - a. Restart your Mac and press “Command” and “R” at the same time
  - b. Release the keys when you see the Apple logo or spinning globe
  - c. Choose “Disk Utility” | “Continue” | select the volume | “Erase” | Name = “Macintosh HD”, Format = “Mac OS Extended (Journaled) or “APFS), Scheme = “GUID Partition Map” | “Erase” | quit Disk Utility
7. (Optional) Install clean MacOS. From “Utilities Menu” above choose “Reinstall MacOS” | “Continue” | select your disk | “Install” | on the setup assistant press “Command” and “Q” | “Shutdown”

Reference: <https://support.apple.com/en-us/HT201065>

Reference: <https://support.apple.com/en-us/HT204904>

## Android Devices

1. Backup all data you need to keep, especially photos!
2. Remove and keep the SD Card or wipe it by going to “Settings” | “Storage” | “Unmount SD card” | “Format SD card” (see digitaltrends.com reference if this path doesn’t exist on your device for other options)
3. Encrypt the phone “Settings” | “Security” | “Encrypt”
4. Wipe the phone itself “Settings” | “Backup & Reset” | “Personal Data” | “Factory data reset”

Reference: <https://www.guidingtech.com/40874/securely-wipe-android/>

Reference: <https://www.digitaltrends.com/mobile/how-to-wipe-your-android-phone-or-tablet/>

## iPads and iPhones (iOS devices)

1. Unpair your Apple Watch (if you have one)

2. Backup all data you need to keep, especially photos! Most content can be backed up through “Settings” | “iCloud” | “Storage & Backup”
3. Sign out of iCloud. “Settings” | “iCloud” | “Sign out” or “Delete Account” | confirm with password
4. Wipe the phone itself “Settings” | “General” | “Reset” | “Erase All Content and Settings” | “Erase iPhone”
5. Remove and keep the SD Card or wipe it.

Reference: <https://support.apple.com/en-us/HT201351>

Reference: <https://www.zdnet.com/article/how-to-securely-wipe-your-iphone-for-resale/>

## **Internet of Things/ IoT (routers, printers, etc.)**

Unfortunately the very nature of these devices make each one unique. You should visit the manufacturer website of these devices for the Administrator Guide for how to wipe the information. If no directions are provided at least perform a “factory reset”. Be aware many IoT devices store information even some multi-function printers have hard drives that store prior scanned images!

## **How to Physically Dispose of the Hardware**

Circuit boards and components inside of a computer, tablet, or PC are hazardous to the environment. Throwing these items into the trash to be taken to a landfill will harm the environment, and should not be done. Fortunately, there are several environmentally safe options available to you.

### **Sell/Donate**

Best Buy -

<https://www.bestbuy.com/site/services/recycling/pcmcat149900050025.c?id=pcmcat149900050025>

Staples - <https://www.staples.com/sbd/cre/marketing/sustainability-center/recycling-services/>

Goodwill - [https://goodwillvirginia.org/donate/?gclid=EAIaIQobChMI\\_77kvNuP3QIVSI9-Ch1sIA4XEAAAYASAAEgLZNvD\\_BwE](https://goodwillvirginia.org/donate/?gclid=EAIaIQobChMI_77kvNuP3QIVSI9-Ch1sIA4XEAAAYASAAEgLZNvD_BwE)

Verizon - <https://www.verizonwireless.com/od/trade-in/#/>

### **Recycle**

VPPSA – Rotates between York County, Williamsburg/James City County, Hampton, and Poquoson

<http://www.vppsa.org/services/#chemical>