**Backups:**

Why do I need backups?

* To prevent loss of data – period.
  + Hard drive (SD Card) failure.
  + Accidental overwrite.
  + Accidental deletion.
  + Fire.
  + Theft.

Create a strategy for your backups, like the ever popular 3-2-1 strategy. This is where you have:

* 3 – Have three copies of your data.
* 2 – Keep them in two separate places.
* 1 – At least one must be offsite.

How often should you back up your data? That is a personal preference. Consider setting up your backups, to an external hard drive and/or the cloud, to run automatically. Don’t get caught in a situation where you cannot take any more pictures because your SD card or phone storage is at capacity.

Storage of your backups:

* External hard drives
  + These have come down in price over the years and is a very affordable way to keep backups.
  + Popular brands are Western Digital and Seagate.
* USB drives.
* CDs and DVDs.
* Cloud
  + Be smart when shopping for cloud based services as most companies use tiered price structures. These are old-school because of the low-cost of hard drives (used in servers) now-a-days.
  + This type of service is offered for free by many companies, but is limited in space.
    - Google Photos
    - Flickr
    - Amazon
    - Dropbox
    - OneDrive
    - iCloud
    - SmugMug
    - Photobucket
  + Some cloud services will actually alter the size of your files so check into that. This is referred to as ‘downsizing’ and some companies do that to help in how much data you can store with them. But ‘downsized’ photos are not the same as those you uploaded. Some will not allow you to upload large files (so RAW formatted pictures cannot be uploaded).
  + Be aware that using a company with cloud based service has some risks.
    - Security
    - Privacy
    - What happens to your photos if that company closes shop
    - Tech error at the cloud service company
  + Online Cloud Backup Services
    - Backblaze ($60 per year for unlimited storage)(this is my recommendation and either contact me for a link to them or use the link found on every page of the group’s website).
    - iDrive ($70 per year for 2TB of storage).
    - Carbonite
    - Acronis True Image ($100 per year for 1TB of storage).
* No matter what type of backup method you use – you should periodically test your backup recovery to ensure it works.
* NOTE: A word of advice is to be cautious of gimmick offers that are found online – especially on Facebook. Many companies will try to sell you a USB drive that contains one or more programs on it to find all the pictures on your computer. These companies are, in my opinion, taking advantage of people that don’t understand just how easy it is to do themselves. These companies sell you a generic USB drive with only 16GB of storage for as much as $100. Will 16GB be enough for your photos (and maybe videos)? If not, you’ll end up buying more than one device and then, how can you search multiple devices at the same time once they are backed up? Instead, use Windows Explorer (on a PC) to do your own searches, then back those files up to a reliable storage device that is large enough to accommodate all your files. (I searched my computer for photos and videos to back up in this manner. I came away with 555.2GB of data, which means I’d need 35 of these USB devices. One company was selling each generic USB drive for $79.99, which means I’d be spending $2,799.65 to back up those files. This, compared to a Seagate 1TB drive that costs $44.99 on Amazon (as of July 11, 2019). Contact me if you want to learn how easy it is to do this yourself – I already have a one-page procedure because it’s that easy.)

**Organizing your photos:**

Organizing your photos allows you to find them easier when you go to look for them. Each person will have their own style and preference on how to organize your files. Do you want to use your own method or would you prefer to use a photo hosting service to do that for you?

If using a photo hosting service, be aware that all your pictures will need to be in the cloud, the service will probably cost you some money, and you’re using that companies method of organizing. Here are a few companies offering such service:

* Flickr
* ImageShack
* Lightroom
* SmugMug

If organizing on your own, here are some tips:

* By Year and Event
* By Family or Friends
* By Business or Organization
* Label your folders and pictures appropriately (makes future searching much easier)
* Create a Naming Convention and Structure (and stick to it)
* Have a copy of all your photos in at least one location (having some pictures on your phone and others on your computer and others on an SD Card makes it very difficult to organize your photos).

**Recovery Process:**

There may be a time when you will need to do recovery of a deleted file. The file may have been deleted accidentally. There are many applications to use in helping recover those files, but be aware that none of them are 100% guaranteed. There are many variables to a successful recovery process – like has that space on the drive (SD Card) been overwritten with a new picture? If so, recovery is impossible.

Because there are different computers used (PC and mac) and operating systems (Windows, Linux, Unix, macOS and more), different applications are available. It is beyond the scope of this document to get into the details of the various applications, but here is a list of some of the more popular ones. Be aware that some are free, others are free but with limitations, and others will cost you some money.

* ADRC Data Recovery Tools
* BPlan Data Recovery
* CD Recovery Toolbox
* Disk Drill
* EaseUS Data Recovery Wizard
* FreeUndelete
* Glary Undelete
* iBoysoft Data Recovery Free
* MiniTool Power Data Recovery
* Orion File Recovery Software
* Pandora Recovery
* PC Inspector File Recovery
* PhotoRec
* Puran File Recovery
* Recuva
* Restoration
* SoftPerfect File Recovery
* Stellar Data Recovery Free Edition
* TOKIWA DataRecovery
* UnDeleteMyFiles Pro
* Wise Data Recovery

Recuva seems to be highly rated on many websites and I’ve personally used it to successfully recover files – photos and data.