Backup

What we should all do but never get round to!

Why Backup

- Computer backup is one of the most important aspects of using a computer but is often overlooked.
- By 'Backing up' you make a copy of your whole hard drive which can then be used to restore all the files if the original is damaged or infected.
- What can go wrong
  - Spilt Coffee
  - Virus Infection
  - Hard drive failure
  - Physical computer damage
  - Theft
- The bottom line is that if you value what's kept on your computer, it's wise to take steps to protect your information from sudden loss. Work can be redone, but the loss of cherished files like family and travel photos is permanent.

Backup v File History/Backup

- Backup is about all the files that are on your computer. This includes all your files, files associated with any programmes and those files that make your computer work.
- File History is about only your files.
- Backup you can do about every few months
- File History you should do daily.
- File History, once set up, will run automatically.
- Both should be onto an external drive
- Backup takes a lot of space – needs an external drive
- File History take less space – use a large USB drive

Where to Backup to

- You could regularly back up your files to your main computer hard drive (only with some applications).
- But
  - Will not protect you from a hard drive failure.
  - Theft
  - Fire
- Saving data to a separate location makes far more sense
  - On an external hard drive
  - On a large-capacity pen drive

Backup Software

- Window 10 Backup
  - Built in
  - Easy to use
  - Microsoft have classed it as "deprecated"
- AOMEI Backupper Standard
  - Reasonable easy to use
- EaseUs ToDo Backup Free
  - A bit more complicated to use
  - Has more options
- Macrium Reflect Free
  - A bit more complicated to use
  - Has more options
  - The 'paid for' option will let you transfer you setup to a new computer

Terminology

- Disk Backup: a backup of a complete hard drive.
- System Backup: a backup of the operating system drive on you computer.
- Partition Backup: a backup of a partition. Ignore this option.
- File Backup: a backup of user files. For Windows 10 users File History is probably the better option.

More Terminology

- Differential backup: a copy of the data that has changed or been added since the last full backup.

- Incremental backup: a copy of the data that has changed since the last backup, whether that was full backup or incremental.

- Cloning: is the process of copying the contents of a computer hard drive to an image file that is then used for transfer to another location.

Process

1. The process is similar regardless of the application you use
2. Install the backup software if not already installed
3. Create a 'System Image' on an external storage medium
   - Some backup software will allow you to create a system image on you C: drive
4. Create a restore disk on a CD.
   - This is needed to allow you to reload the system image onto a new hard drive.
5. Put it away and hope you will not need it.
6. You might need to create another 'System Image' (step 3) if ever you install new software.