

# Tutor Lead Session – Image Storage and the Cloud.

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## Storage

There are many different types of storage when it comes to backing up your photos and keeping them safe. This guide will explain a few of the different ways and then go into detail about the complex world of clouds and in particular iCloud. This guide is suitable for those using laptops as well as tablets including both Android and Apple.



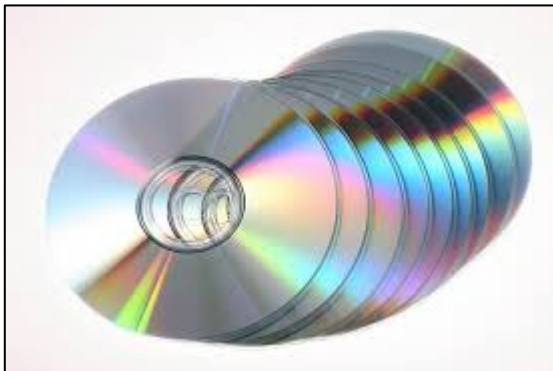
## SD Card

SD Cards are ‘plug and play’ cards of storage that vary in price and storage size. Most digital cameras and even some smart phones use SD cards as a method of storing photos, videos, songs and documents. With no installation necessary, SD cards are a good first step into learning about storage and memory of your devices. Any photo stored on an SD card can be shared with other devices due to the universal nature of SD cards but they can’t be shared with Apple devices as they don’t have the required slot to read an SD card. When an SD card is full, you must either delete photos to make room for new ones or go and buy another SD card if you don’t wish to delete any photos you’ve previously taken. Alternatively, you can move the pictures from the memory of the SD card to the memory of your device and thereby free up some room on the SD card. However, standard SD cards aren’t password protected and can be easily lost or damaged. There are many popular brands of SD card but due to their universal nature, they should fit all devices with a corresponding slot.



## CDs

Blank CDs can be bought from a variety of different shops and allow you to 'burn' photos, songs, documents and videos on to them. In regards to photos, they are often stored on CD and kept as hard copies should anything happen to the main device being used. This works well as a form of back-up however tablets and smart phones aren't compatible with CDs and so data can't be shared between one and the other. CDs come in a variety of storage size and often come in multipacks. Standard CDs can be easily lost or damaged and have no form of security measure to guarantee the safety of your photos. CDs are also made by many different companies but are universal to any device with a CD drive.



## USB Memory Sticks

USB memory sticks are plug in and play like SD cards and offer a similar style of 'plug in and play' transferal of data with no installation required. They can also act as a form of back-up should anything happen to your device. The difference between SD cards and memory sticks is that where an SD card can fit into a computer/laptop, a digital camera and some tablets and smart phones; a USB memory stick can only fit into a laptop or computer or in rare cases a tablet with a USB slot. They come in a variety of shapes and sizes physically and also vary in regards to storage size. Some memory sticks are password protected and so anything you store on them can be protected but as they are a physical thing they can be easily lost or damage similarly to SD cards and CDs. USB sticks are produced by many different companies and come in 2 types. USB 2.0 and USB 3.0. Newer devices may require USB 3.0 memory sticks as the slots are subtly different and vice versa in regards to older devices and their compatibility with new USB 3.0 memory sticks.



## Clouds

Clouds to most people refer to the fluffy bringers of rain but in the world of digital, clouds are more complicated. Clouds are managed by a variety of different technology companies and act as a password protected storage space that is saved on the internet. They come in a variety of different storage sizes and some are available for use on multiple devices. You can use clouds to store photos, videos, songs and documents. Most companies offer clouds for free up to a certain size and then require payment to expand the amount of storage you have. With clouds being accessible from any device that is internet enabled, they have the greatest inclusivity rate of any of the forms of storage and with them being linked to an e-mail account and requiring a password to access they are much more secure than any physical forms of storage as well as the added bonus of them not being a physical thing and so un-damageable.



## Best option is...

A cloud. With most clouds being free (admittedly up to a point but it's often enough for an average user), accessible on multiple devices and password protected, it is easy to see why the cloud is the best option for saving things digitally. Tie that in with the fact you can't misplace or spill a drink on your cloud and you're in for a winner!

We're now going to take a closer look at different types of clouds available and how they work.

## Clouds

Clouds work wherever there is internet. Providing the house, café or shop you're in has Wi-Fi, you can access your cloud. You can even use other devices and as long as you know your e-mail address and password and the device is connected to the internet, you can access your cloud. Most tech companies run a cloud service. These are free to register to use and will come with a certain amount of space e.g. 5GB of storage. Once the space is full, these services will offer to extend your storage space but for a monthly charge or a one-off fee.

All clouds are accessible on the device you install them on and on a web version of the cloud. For devices, you download apps. For desktop or laptop computers, you access the website. This is so you can access any of your files you share with the cloud on other devices. An example of this practical use is where somebody with an Apple iPad takes pictures on holiday and shares it with their iCloud account. These pictures will now be available to view on their Apple iPhone and home computer. Sharing between a device and a desktop/laptop should be simple but in cases where you are sharing between devices like smart phones and tablets, some syncing may need to take place. Syncing is where the 2 devices in question e.g. your iPad and iPhone, recognise they are both linked to the same iCloud account and begin to mirror and share any photos placed in the cloud. Below are some examples of cloud services.

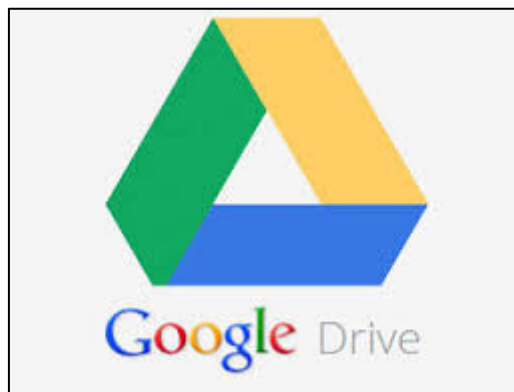
## Microsoft

Microsoft cloud is called OneDrive. OneDrive advertises itself as 'Online storage for your personal files' and offers you 15GB of storage space for free. They also offer 100GB at £1.99 per month, 200GB at £3.99 per month and 1TB at £5.99 per month but this offer also includes the Office 365 package containing Microsoft Word and Excel amongst others. For most average computer users, the free 15GB is enough. OneDrive is accessible on Windows, Android, Mac, iOS, Windows Phone and Xbox. Microsoft appear to be the cheapest and the offer including Office 365 is a brilliant offer if you don't already have a publishing package.



## Google

Google's cloud service is called Google Drive and advertises itself as 'A safe place for all your files' and offers you 15GB of storage space for free. They also offer price plans of 100GB at \$1.99 (£1.28) per month, 1TB at \$9.99 (£6.43) per month and even larger packages at greater monthly prices but these far exceed the amount of storage needed by an average computer user. Google Drive is accessible on a laptop or desktop computer as well as Android and Apple phones, laptops and tablets. Google have recently brought out a range of notebook like laptops called Chromebooks, which give you 100GB of Google Drive storage free for 2 years. Google is slightly more expensive than Microsoft but with the growing number of devices that are using Android operating systems, having a Google Drive account may be beneficial for the future.



## Apple

Perhaps the most famous of the cloud services, iCloud is ran by technology giant Apple. iCloud sells itself by saying 'Set up iCloud on all your devices. The rest is automatic'. Apple iCloud offers you 5GB for free, which is 10GB less than Google Drive and OneDrive. To have any additional storage Apple charge you like the rest. 20GB is \$0.99 (64p) per month, 200GB is \$3.99 (£2.57) per month, 500GB is \$9.99 (£6.43) per month and 1TB is \$19.99 (£12.86) per month making Apple iCloud the most expensive of the cloud options. If you already have an Apple device then iCloud is probably easier but most people without Apple devices steer clear of iCloud. Apple is the most expensive of the clouds and isn't as functional as the others on devices not made by Apple however iCloud is used in the 'Find my iPhone' app which allows you to remotely locate, lock and wipe a device should it be misplaced or stolen.



Most tech companies push their cloud to people using their devices. If you have a Nokia Lumia phone or a Microsoft Surface tablet, Microsoft push OneDrive. If you use an Android phone or Chromebook then Google Drive will be pushed and for those with Apple devices such as iPads, iPods, iPhones and iWatches; iCloud will be pushed. Typically using the cloud of the company that produce your device or software is easier. An alternative is Dropbox.

## Dropbox

Dropbox is a company that specifically makes and manages a cloud service called Dropbox. Dropbox have a tag line similar to the rest. 'Dropbox keeps your files safe, synced and easy to share'. Dropbox only gives you 2GB of space for free. Their plan regarding more storage is a single offer of 1TB for £7.99 per month putting it in the same price bracket as OneDrive and Google Drive. Where Dropbox advantages lie is in the simple way you can expand your storage by inviting others to Dropbox or by sharing Dropbox via Facebook or Twitter. Dropbox may offer you the smallest amount of space and not offer you as many storage options when looking for additional storage but it is the most user friendly when using a cloud across multiple devices. The option to get more space by inviting others to join Dropbox is a brilliant marketing idea for a smaller tech company in a competitive market but also allows users a free way to increase their storage plus you're not tied to another big tech company.



So there's many ways to save, share and back-up your photos both on and off line. For any more information or advice, speak to a volunteer and they'll do their best to look at your device and work out the best option for you!