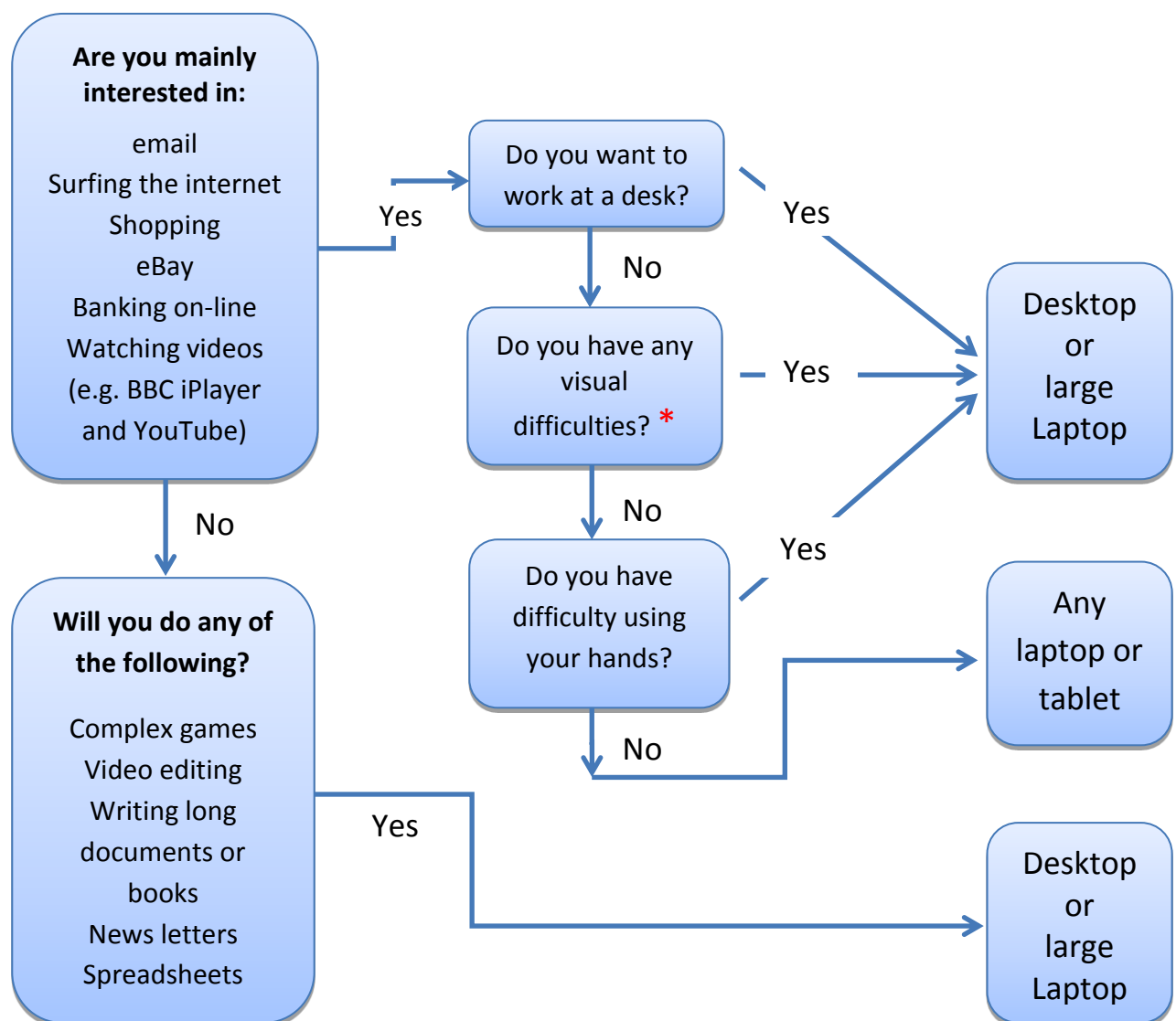




## Computer Friendly guide to buying a computer

Have you decided to buy a computer? If so you have some interesting challenges in deciding what type will best meet your needs, and how to connect it to a printer and the internet. This guide should give you an idea of what to look for before you visit a shop or website. **We cannot advise on specific products, but most computer magazines sold in newsagents, or available from the library, include tests and up-to-date recommendations.**

First, you should decide how you will mainly use the computer, and then if you have any particular needs. You may also want to consider if friends and family will want to use it. The flow diagram will indicate the most suitable type of computer for your needs, and the different types are described below.



**\* Computer Friendly can offer more detailed advice for people with visual impairments. Just visit the Monday drop-in at Fleetville (the address is at the end).**

## What is the difference between the types of computer?

All computers perform similar tasks but they have different strengths and weaknesses. The main differences are indicated in the Table, and described in more detail below.

Computer type	Power for complex games etc.	Portability	Large screen/keyboard
Desktop	***	not applicable	***
Large laptop	***	*	**
Small laptop	**	**	*
Tablet	*	***	*

### Desktop computers

These have a separate monitor screen, keyboard and mouse. Electronics including a power supply, hard drive and memory are either built into the monitor screen – sometimes called an ‘all-in-one’, or more traditionally in a separate box. The main advantage is that you can have a large monitor screen, typically from 20 to 24 inches measured diagonally and a large keyboard which you can position where you find most comfortable to avoid neck or back strain. They may be designed to connect to the internet using a wired connection (known as Ethernet) instead of wirelessly over Wi-Fi, but Wi-Fi adapters are available for around £20. The main disadvantage is that because of the size you have to leave the computer set-up on a desk, rather than use it where you like. They are most suitable for extended periods of use or where a large screen is required.

### Laptop computers

These are also called Notebook computers, and they have the screen joined onto the keyboard to make a compact self-contained unit. Screen sizes are typically between about 10 and 17 inches, measured diagonally; the small ones are sometimes called net-books or ultra-books. The most popular size is around 15 inches, which is suitable for most activities. They can be used either with a separate mouse or with a built in track-pad which avoids the need for any additional bits and pieces, but some people find track-pads difficult to use. Some also have ‘touch screens’ which allow you to control the computer by tapping and swiping the screen, but again some people find this confusing to use. They have the electronics necessary to connect to the internet over Wi-Fi built in. They also have a webcam (a camera for use with a video telephone service like Skype) built in.

### Tablet Computers (including iPads)

These are just a screen, with a ‘touch’ keyboard that appears on the screen when needed. They typically have screen sizes ranging from 7 to 10 inches, measured diagonally, but there are a few with larger screens. They can be used like laptops, for example to use Google to

find a particular website, but to save typing they make much use of 'apps'. These are downloaded from the Google or Apple websites (usually free or low cost) and tapping on one will take you straight to, for example, a supermarket, your bank or to countless other websites such as the BBC iPlayer or a language learning course. Applications, such as a word processor, can be stored on the device instead of using a website. An external keyboard can be connected, but in some respects this defeats the objective of a having a compact, self-contained portable device.

Tablets usually have a camera for taking photos and a second camera for 'selfies' and video calls to friends (e.g. using Skype). Most also have GPS built in for use with satellite navigation apps. All Tablets will work on Wi-Fi, and some will also connect to the internet using the 3G or 4G mobile telephone networks – but this can be expensive to use if you watch films or TV programmes.

Tablets are most suitable for light use, but hybrid versions are available in which the tablet can be plugged into a keyboard to form a laptop when more serious work is to be undertaken.

### **Operating systems**

The operating system is a complex computer program that supports everything the computer does including running other programs (called applications or 'apps' for short) and connecting them to the keyboard, screen and printer. Most desktop and laptop computers use either Microsoft Windows or the Apple Mac operating system. They do the same job but each has its own adherents. Windows is available for a wider price range of computers and more users are familiar with it. Have a look at Windows and Apple devices and ask friends and family members what they use as they may be better able to help you if you buy a device of the type they are familiar with.

Some laptops are called Chromebooks because they use an operating system from Google that features the Chrome internet browser. These are intended to be connected to the internet most of the time and mainly use applications developed by Google. They are simple to use, but lack access to the vast number of applications available to Windows and Apple users and so may not suit everybody.

Tablet computers use operating systems from Google, Apple and Microsoft, called respectively Android, iOS and Windows. Android and iOS are quite similar, but again there is more choice of lower cost devices with Android. Windows is similar to the desktop/laptop version so may be familiar, but it has a smaller choice of apps. Again, have a look at all types and ask friends and family what they use.

## **Computer specifications**

The main considerations are: screen size; screen resolution (sharpness); number of cores and speed of the processor; amount of memory (RAM), amount of storage (hard disk, or memory card for tablets); and battery life for portable devices.

Large screens are good for viewing, but small screens make the device more portable. The picture is made of dots called pixels and the more pixels the sharper the picture. For example a 15 inch screen with 1920 pixels horizontally and 1080 vertically will give a sharper picture than one with 1366 horizontally by 768 vertically. Sometimes screen resolution is described by pixels per inch (PPI). A screen having 252 PPI will be sharper than a similar sized one providing 216 PPI.

The processors do most of the work and most computers have two or four processors in one unit, described as dual core, or quad core. Cheaper computers may use the Intel Atom or Celeron processors, while a high performance laptop suitable for complex games may have an Intel core i7 processor. An Intel core i3 or the newer and more efficient m3 will be a good workhorse for a general purpose laptop. Processors made by AMD are usually slightly cheaper than those from Intel.

The amount of built in memory (RAM) influences how fast the compute will run, especially when several applications are open at once. The simple guide is the more RAM the better. It is measured in gigabytes (GB).

The capacity of the hard disk (measured in gigabytes or even bigger terabytes) limits how many photos, videos, music tracks etc. it will hold. Most modern hard disks will hold enough for an average user. Solid State Disks (SSDs) are faster than traditional hard disks, but are more expensive. Tablet computers often have 8, 16, 32 or 64 gigabytes of memory. The operating system will occupy some of this, so it is useful if the Tablet will accept a microSD card, which will cost a few pounds, and can be used to store photos and music etc.

The battery life indicates how long you can use the device between charges. Battery life can be extended by turning down the brightness of the screen, and turning off electronics, such as GPS, when not being used.

## **Connecting to the internet**

To get the most from your computer you will need to connect it to the internet. To do this you must first sign-up with an internet service provider (ISP), who may also offer you telephone and television services. The main ISPs are BT and Virgin Media. These organisations have their own data networks; there are many other ISPs to choose from, but they use part of the BT network. Check to see if you will have to pay another line rental. The ISP will give you a box, called a router, which you should connect to a mains power point and a telephone point (through a small box containing a filter). Alternatively, your ISP may

install a fibre optic cable to your house which you connect to the router instead of the telephone point.

Desktop and larger laptops can be connected to the router using a cable called an Ethernet cable. All modern types of computer (desktops may need an adapter) can connect to the router without wires, using Wi-Fi, and this gives you freedom to use the computer anywhere in the house and at Wi-Fi hotspots in coffee shops and many other public places.

The ISP will sell you a broadband package. This will specify the maximum speed of your connection and may limit how much data you can download each month. If you only check emails and do light surfing a budget package will be fine. However, if you intend to download videos or watch television programmes, for example on the BBC iPlayer, or share the package with other family members, a more expensive package may be better.

Instead of using a router as described above, you can access the internet using the 3G or 4G mobile telephone network. This has the advantage that you can use your device wherever there is an adequate phone signal. Some tablets are available with this feature built in, and USB 'dongles' are available for laptops. Alternatively, small boxes are available which 'convert' the phone signal to Wi-Fi so you can use it with several Wi-Fi enabled devices. You can get more information on equipment and prices from the mobile phone companies.

## **Printing**

You may want to print your letters and photos. The most popular kind of domestic printer is the 'ink-jet' type. As well as printing most of these will work as a copying machine and a scanner – which means they will send your computer an electronic version of a paper document or photo. You can then send the electronic version by email or just look at it on the screen.

Ink-jet printers use ink in cartridges. The number of cartridges they use, the capacity (i.e. how many pages they will print) and the cost varies considerably and is worth checking when choosing a printer.

Desktop and laptop computers can connect to a printer using a cable with a suitable USB plug at each end. This is the simplest and most reliable way of connecting a printer. Wi-Fi enabled printers can connect to your computer over your Wi-Fi network with no cable connection so need not be close to the computer. Tablet computers and Smartphones can also print over Wi-Fi if the printer supports 'Cloud Print' for Android devices or 'AirPrint' for Apple devices.

If you don't anticipate doing enough printing to justify buying a printer, you can buy a USB flash drive for a few pounds from shops with computer departments. You can copy the files you want to print from your computer to the flash drive and take it to the library for printing. Photos can also be printed in many photographic shops and supermarkets.

## Where to buy your computer

The widest range of computers is available from on-line retailers such as Amazon. However, you may prefer to try-before-you-buy. The largest local retailers are John Lewis, Currys/PC World and larger branches of some supermarkets. Apple also has specialist stockists. Shop around to see how knowledgeable and helpful the staff are, and wherever you decide to buy from, don't forget to ask about the length of the warranty and the after sales support.

Your new computer will have to be 'set-up' before you can use it, for example by creating an email account. **It is important that you know any passwords that are used as you will need them if anything goes wrong in the future.**

## Do you need more help?

For free, friendly, unbiased advice you are welcome to visit a Computer Friendly drop-in. There are two to choose from:

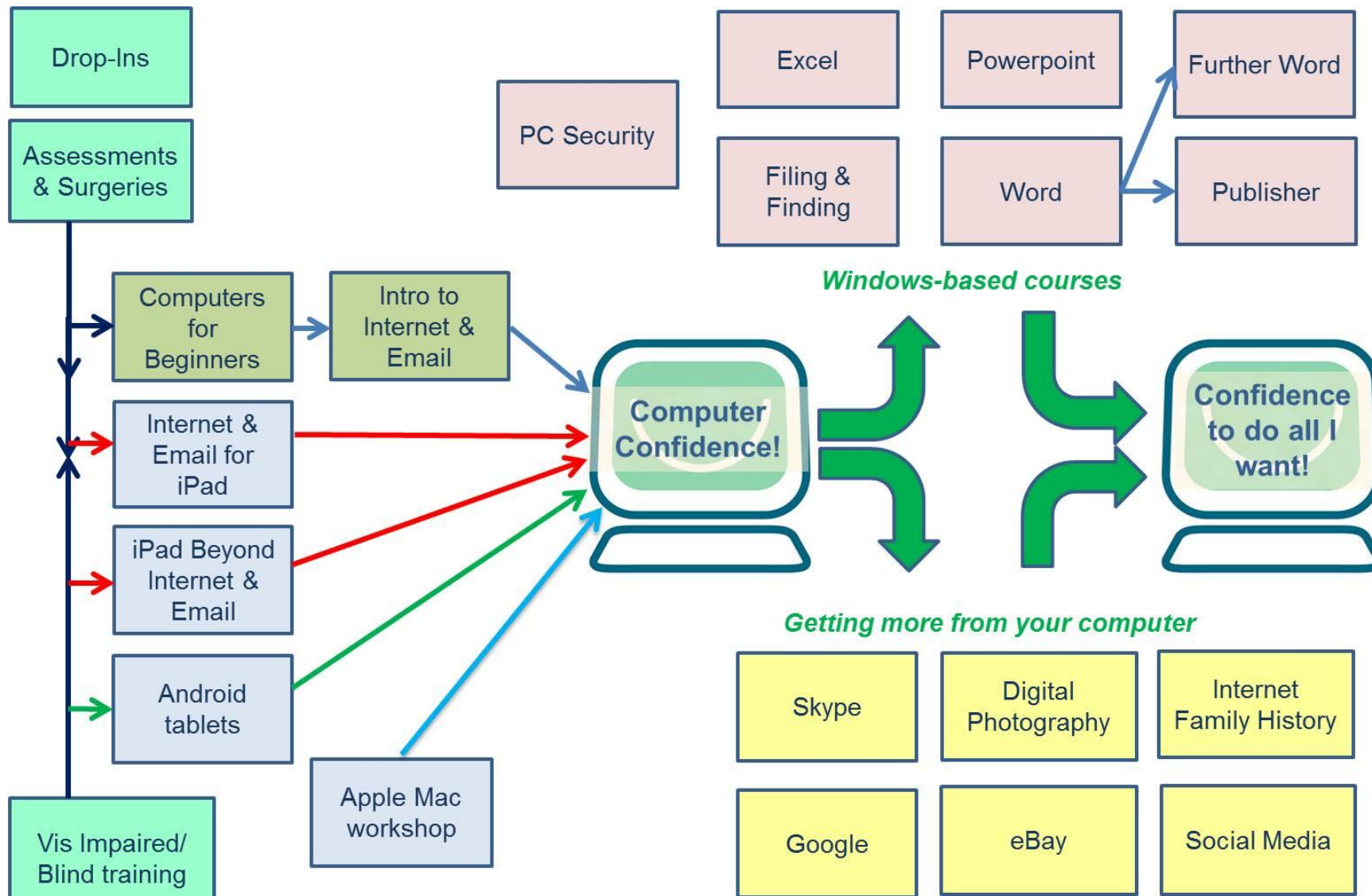
Place	Day	Time
<b>St Albans.</b> Fleetville Community Centre, Royal Road, AL1 4QL. (opposite Morrisons supermarket)	Monday	10:00 to 15:30
<b>Harpenden.</b> Skew Bridge, Southdown Road, AL5 1PQ	Tuesday	10:00 to 13:00

At these drop-ins you can get free advice or practical help, using our laptops or you can bring your own device – laptop or tablet.

### Introductory Courses

Computer Friendly also offers a range of courses to help you get more from your computer. They range from introductory courses for beginners on desktop/laptop computers and tablets, to more advanced leisure courses on family history, Buying and selling on eBay, Social media and digital photography, to vocational courses on Microsoft Office.

For more information phone 020 3239 1559 on Mondays, Tuesdays and Wednesdays between 09:00 and 13:00 only, or visit <http://www.cfsta.org>



[www.cfsta.org](http://www.cfsta.org)

## Computer Friendly Roadmap

Oct 2015



**Computer Friendly**

has a **NEW** Drop in Centre  
in Harpenden

# Just Drop-In!

**Come and see  
what we offer**



- Help with your laptop and tablet problems
- Help get you started on the Internet
- Try out our computers
- Advise you which course to start with
- Get our leaflet for a friend or relative
- Discuss our visually impaired training

**and it's FREE!**

**Tuesdays 10am-1pm  
Starting 15 September**



Harpenden Skew Bridge Drop-in Centre  
59 Southdown Road, Harpenden

**More details Tel: 020 3239 1559**

[www.cfsta.org](http://www.cfsta.org)

Registered Charity No. 1096433



**Computer Friendly**

has a Drop in Centre  
in St Albans

# Just Drop-In!

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**Mondays  
10am-3.30pm**



Fleetville Community Centre  
Royal Rd, St Albans. Opposite Morrisons

**More details Tel: 020 3239 1559**

[www.cfsta.org](http://www.cfsta.org)

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