Computer Basics

Teaching Script

Surrey Libraries Computer Learning Centres

#### Use this script as a general outline and follow it as it suits your teaching style. Class time = 1-1.5 hours hour

####

**Types of computers**

Definition of a computer: a computer generally means a machine that is programmable. It responds to commands (your clicks and keyboard entries), and can automatically operate based on a set list of instructions (like a program, it runs mostly on its own without you needing to tell it much).

* **Desktop**: was the most common type. Typically cheaper than a laptop. Easily expandable and upgradeable.
* **Laptop**: personal computers good for using outside of the home or office. Portable. Because of the size, it is more difficult to access its internal components and make upgrades (there is more room in a desktop tower)
* **Tablet**: smaller and lighter than a laptop, it is gaining in popularity. Mainly used to go on to the internet, play games, read or listen to books, and use social media.
* **Smartphone**: smaller than a tablet, it is like a combination of a mini tablet and a cell phone.

**Desktop PC (PC= Personal computer)**

1- the **Monitor** or the screen

2 – the **Modem** is what gets you on the internet; it isn’t always attached to a computer

3 – the **System Unit** is also commonly referred to as the **tower**

4 – the **Mouse** controls the cursor

5 – **Speakers** can be separate or embedded in the monitor or tower; most towers have embedded speakers

6 – **Printer** – an optional attachment; it can also be wireless

7 – **Keyboard** - can also be wireless

**Desktop**

* The desktop is the very first screen you see after your computer starts.
* Desktop contain icons.
* Icons are shortcuts to programs, files or places.
* Double click to open an icon.

**Task Bar**

Icons are picture representations of programs and files on your computer. These pictures on the bottom show you what programs you have open.

* click on various items on the task bar to open and close programs and windows
* point out that clicking on a program in the task bar makes the window appear and disappear (it doesn’t close the program, it just hides it)
* click on the time to display the calendar, and the volume button

**Start Menu**

The Start menu has two basic parts:

-left sideshows a list of programs on your computer.

-right side shows main areas and functions of your computer

The **search box** is located in the lower left corner.

* You can look for any file or program on your computer here as long as you know what it is called

**Opening a program**

* Single-click vs. double-click:
	+ Single click an icon on the task bar to open a program (try it with IE)
	+ Double click an icon on the desktop to open it

**Windows Properties**

Minimize, Maximize/Restore, and close.

* show what these functions are in any window/program
* point out that by hitting the X Close button, they do not hide the program (like when you click on its icon in the task bar) but turn it OFF

**Moving & resizing windows**

* practice dragging windows around by clicking on the top of a window and dragging & dropping
* show how to resize windows, both by the sides and on the corner

**Applications (programs or software)**

Applications are what you use on a computer to perform an activity such as going on the internet (you use a web browser for that), using the calculator, or typing a letter.

* **All programs**: If you don’t see the application you want, click on **All Programs** to see a complete list.
* **Search:** If you know the name of the application or file (like a song) you are looking for, enter it in the “search programs and files” bar.
	+ use calculator as an example for searching for an application
* When you open an application, it opens up on a new window, on top of the desktop background. Click on its icon in the task bar to make it disappear and reappear. The task bar lets you know what applications are open and “running”
* You can have multiple applications open at once, but if you have too many your computer will run more slowly.

**Where are my files?**

Files can have their name changed, they can be copied, and they can be moved to other parts of your computer

* Demonstrate how to search for a file or program via **Start Search**

**Where is my photo?**

Practice clicking and double clicking to get into folders and open files

* Look at photo files by getting the class to:
	+ Click on the Start Menu
	+ Click on Computer
	+ Click on Photos
	+ Double click on Sample Photos
* Rename photos as an exercise

**Organizing your files**

You can move your files and rename them at any point.

* Open up a Computer window and point out the differences between folders and files
* Right Click on a file to rename or delete it
	+ Explain that Right Clicking opens up a set of options on what you can do with a file (i.e. delete, rename, copy, or print)

**Files & folders**

Explain once more the purpose of files and folders (in terms of organizing)

* Example could be organizing your photos (making folders for each month or yearly set of photos you put on your computer)

**Control Panel**

The control panel is the area where you can change the settings in your computer. This includes what picture you’d like on your desktop, adding a different language to your keyboard, or setting up a printer.

**Computer Security Tips**

* Use a password on your desktop or laptop computer
* Download free anti-virus software (like AVG) or buy anti-virus software to protect your computer and make sure that you are receiving or enabling updates to happen automatically on your computer

**EXTRA OPTIONAL MATERIAL IF CLASS HAS TIME**

**Common terms and concepts**

Hardware vs Software

* Hardware: has a physical structure
* Software: any set of instructions that tell the hardware what to do
	+ Apps / Applications / Programs
	+ Different types of computers use different types of software

**Operating Systems (OS)**

Another way to think of Operating Systems is different brands running computers. Some brands have software that will only work on that type of OS system (if you see something that says “Windows only”, you cannot use it on a Macintosh computer).

* PC: Microsoft Windows
* Mac: all Macs are made by Apple
	+ Apple also makes all the “I” devices” (iPad, iPhone, iPod…)
* Android: mobile smartphones and tablets
	+ Mostly operated by Google

**Hard Drives**

* Hard drive: the main part of your computer that stores information
	+ It is inside and you cannot see it
* External hard drive: an external source of storage that you buy “extra”
	+ Comes in different sizes in terms of file space
* Removable storage: small removable hard drive that plugs into a USB port
	+ USB Key, Flash Drive, Memory Stick

**Download & Upload**

* Downloading is when you save a file from the internet to your computer. You get a copy.
* Uploading is when you save a file FROM your computer to the internet

**Common file types**

Follow PPT slide to go through main types

**File Sizes**

Different types of files and programs take up more or less space on your computer. Managing your files is important so your computer doesn’t get too full!

* documents tend to be the smallest, and video tends to be the largest
	+ a resume is usually somewhere around 50KB
* an average quality photo can be somewhere around 1MB (1,000 KBs)
* a video (such as a movie) can be somewhere around 1GB (1,000 MBs)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | [**Symbol**](https://en.wikipedia.org/wiki/JEDEC_memory_standards#Unit_prefixes_for_semiconductor_storage_capacity) |  |  **Number of bytes** |  **Equal to** |  |
| Kilobyte |  [KB](https://en.wikipedia.org/wiki/Kibibyte) |  | 1,024 |  1024 B |  |
| Megabyte |  [MB](https://en.wikipedia.org/wiki/Mebibyte) |  | 1,048,576 |  1024 KB |  |
| Gigabyte |  [GB](https://en.wikipedia.org/wiki/Gibibyte) |  | 1,073,741,824 |  1024 MB |  |
| Terabyte |  [TB](https://en.wikipedia.org/wiki/Tebibyte) |  | 1,099,511,627,776 |  1024 GB |  |
| Petabyte |  [PB](https://en.wikipedia.org/wiki/Pebibyte) |  | 1,125,899,906,842,624 |  1024 TB |  |
| Exabyte |  [EB](https://en.wikipedia.org/wiki/Exbibyte) |  | 1,152,921,504,606,846,976 |  1024 PB |  |
| Zettabyte |  [ZB](https://en.wikipedia.org/wiki/Zebibyte) |  | 1,180,591,620,717,411,303,424 |  1024 EB |  |
| Yottabyte |  [YB](https://en.wikipedia.org/wiki/Yobibyte) |  | 1,208,925,819,614,629,174,706,176 |  1024 ZB |  |

**Final Questions?**

Thank You and Class Evaluation