# Computer and Device Basics

This module will cover the basics of operating a computer, the differences between types of computers, and-some troubleshooting advice to help you with your device.



## Computers



### **Types of Computers**

A personal computer, also known as a **PC**, is a computer whose size, capabilities, and price make it good for individual use.





### Laptops

Laptop Computers are generally all-in-one computers that are portable and have a built in battery. They can be used when plugged in or they can be used without being plugged in, if the device is fully charged.







### Desktops

**Desktop Computers** can also be called **tower** computers. These need additional peripherals to be used such as a mouse, monitor, and keyboard. Desktop computers are not portable. Desktop computer with a keyboard, mouse, and speakers





### **Tablets**

A **tablet** is a mobile device that is similar to a phone. Tablets are somewhat larger in screen size of a phone, but have the same capabilities. Tablets come in both Android and iOS operating systems. Tablet computer





## Charging a Device

To charge your device, plug it into an outlet and let it charge. Laptop computers need to be charged as they are mobile devices that run on a battery. To charge a laptop, plug in the included charger to keep the battery charged. Desktop computers need to stay plugged in at all times as they do not have a battery and require a source of direct power to operate.

The important thing when charging a device is to make sure that you use the right **charger**.

This is either the charger that came with the device or a charger that is within the recommended wattage and amps (level of power) for the device.



Phone/Tablet Charger



Laptop Charger



# **Operating Systems**

### **Operating Systems**

An operating system (OS) is system software that manages computer hardware, software resources, and provides common services for computer programs.





**Windows** is the most common operating system and is made by Microsoft. Windows can be used on any device, such as computers, phones, and tablets. Some companies that make computers that run Windows are Dell, HP, Acer, and Lenovo.



# Mac OS

Mac OS is made by Apple and can only be used on Apple computers and devices.







**Chrome OS** is made by Google and is found on Chromebooks. Chromebooks can be made by different manufacturers, but they can only be used with Chrome OS.

Chrome OS is focused around the Chrome browser and does not allow much beyond using a browser and Google products. Which operating system is best depends on your needs, the applications you use, and your preference for a certain type of device.



# **Basic Troubleshooting**

### **Be Patient!**

Even the best of us can get frustrated troubleshooting our computers. As frustrating as it can be, if you can stay calm while troubleshooting issues, patience will make the process easier.





### **Restart the Application**

If something in an application is not working, closing it and restarting it can often be helpful.

In some cases you may need to force-quit the application. You can use Task Manager to do this. Right click on the bottom toolbar and select Task Manager. Click on the application and click on "End Task" in the bottom right corner.

Processes Performance App history S	tartup Users	Details	Services			
^ Name	Status		54% CPU	93% Memory	1% Disk	0% Network
Apps (6)						
> 📀 Google Chrome (14)			5.7%	1,145.4 MB	0.1 MB/s	0 Mbps
> 😝 Malwarebytes Tray Application			0%	10.7 MB	0 MB/s	0 Mbps
> 📑 Microsoft Teams (5)			0%	434.1 MB	0.1 MB/s	0 Mbps
> 🐞 Slack (4)			0%	106.0 MB	0 MB/s	0.1 Mbps
> 🚺 Snip & Sketch (2)			0.5%	31.8 MB	0.1 MB/s	0 Mbps
> 🙀 Task Manager			0.9%	28.0 MB	0.1 MB/s	0 Mbps
Background processes (111)						
E AEMAgent			0%	48.3 MB	0.1 MB/s	0 Mbps
🚳 Agent Browser (32 bit)			0%	8.9 MB	0 MB/s	0 Mbp
>  Antimalware Service Executable			0.9%	223.0 MB	0.1 MB/s	0 Mbps
Application Frame Host			1.5%	8.6 MB	0.5 MB/s	0 Mbps
📧 aria2c (32 bit)			0%	0.9 MB	0 MB/s	0 Mbps

Task Manager computer settings



### **Restart the Device**

If restarting the application does not work, your next step is to restart the computer or mobile device. On the Windows OS you can do this by clicking the Windows Icon in the bottom left corner of your screen and selecting **Restart** under the Power options. This will force your computer to shut itself down and restart the computer.





#### **Restart the Device**

On an Android Device, hold down the Power button until the Power options appear. Then tap "Restart" to restart your device or power off to turn the device off completely.

 This works on all sorts of devices!
If you're having trouble on your mobile device, desktop or laptop computer try restarting it.





### Unplug the Device

If restarting does not work, sometimes unplugging the device can help reset your computer. If you have a laptop or mobile device, unplugging it and letting the battery drain will have the same effect.





### Run Troubleshooter

In the Update and Security section of your settings you will find a Troubleshoot page. Here you can select from a list of recommended troubleshoot options. To access the troubleshoot options on Windows, go to "Settings" and select "Update & Security." Then, select "Troubleshoot."







The Troubleshoot page on Windows OS.



### Still Stuck?

If you are still stuck, you can always use a search engine like Google.com to research your problem. Chances are that someone else has had the same issue and shared their solution online!



### What is an IP address?

An **IP address** is a unique address that identifies a device on the internet or a local network. IP stands for "Internet Protocol," which is the set of rules governing the format of data sent via the internet or local network.

To find your IP address click on Settings, then Network and Internet and then WiFi. Click on the Network you are connected to and scroll down to find your IPv4 address. It will look similar to 192.168.1.11



