BRITISH COUNCIL

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Skills for Inclusive Digital Participation

# Basic Digital Skills Training Manual

## Your Guide to Basic Digital Skills

SECOND EDITION

Skills for Inclusive Digital Participation

# Basic Digital Skills Training Manual

Your Guide to Basic Digital Skills

**SECOND EDITION**

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# 1. Who should read this manual

# 1. Who should read this Manual?

This manual is intended for both trainers, and learners, to develop their confidence, knowledge, and basic digital skills.

For trainers, this manual has different resources for use in supporting skills development. For advanced learners, the manual can be used for independent study, adding to the knowledge and skills gained through trainer-facilitated sessions.

## 1.1 How to use this manual

If you are a trainer then you should read this manual, the supporting materials in the accompanying annexes, and the accompanying SIDP **Pedagogy Guide: Guidance and suggestions for trainers using Skills for Inclusive Digital Participation.** This guide includes guidance and suggestions on how to achieve the most from this document. It also equips you with a step-by-step guide on how to disseminate the various learning resources that are meant for the target audience who include differently abled learners.

As a trainer or teacher, we assume you have a good understanding of how to use training materials to develop knowledge, skills and confidence in your students. We also assume you will use materials that are relevant for your students.

We have structured the course materials into self-contained topics to help give you flexibility when you use these materials. You could deliver all the training materials to all of your students, or you could choose to deliver only the topics that are useful for your students to learn more about. It is our hope that this flexibility in the use of training materials will help you deliver appropriate learning journeys for your students.

## 1.2 Recommended and discretionary topics

The content in these manuals is divided into topics. The topics are manuals are categorised into three types

1

### 1.2.1 Recommended topics

These are topics that important for many learners, but possibly not for all learners. A good understanding of these topics is an important foundation for developing digital skills. Recommended topics should be covered if possible.

Recommended topics can be very useful as:

- Extension exercises in a training workshop.
- As an assignment after a training workshop.
- As preparatory work before a training workshop, for instance when a learner moves from basic manual to another manual.

2

### 1.2.2 Discretionary topics

These topics should be covered if there is time, or an interest in the subject. These topics cover important areas of knowledge and skills, but they may be slightly more advanced in nature, or more specific in application.

## 1.3 A suggested learning journey

This manual introduces fundamental digital skills and explains their relevance and importance in an increasingly digital world.

This manual has a little more emphasis on step-by-step instruction as this is an introductory manual than the follow-on manuals.

This manual includes the following topics:

### 1.3.1 Day 1

| Topic | Category |
|---|---|
| First Steps – Introducing you to Digital Devices | Recommended |
| Navigating the Screen and Accessibility Features | Recommended |
| Looking after Hardware | Recommended |

Table 1: Day 1

### 1.3.2 Day 2

| Topic | Category |
|---|---|
| Creating and Managing Passwords | Recommended |
| Connecting to the Internet | Recommended |
| Using Computers and Smartphones Safely | Recommended |
| Cyber Security: Staying Safe Online | Recommended |

Table 2: Day 2

### 1.3.3 Day 3

| Topic | Category |
|---|---|
| Analysing online news and distinguishing Fake News | Recommended |
| First Steps to getting your Business Online | Discretionary |
| Other Basic Digital Skills | Discretionary |

Table 3: Day 3

### 1.3.4 Follow our suggested learning journey

We have suggested topics that we think are important for you to study (recommended topics) and useful topics to study if you have time (discretionary topics).

Study all the recommended topics in order. These topics must be completed to qualify for a certificate of participation.

If you wish to continue studying basic digital skills, we suggest you proceed to the discretionary topics. You can choose to study some, or all, of the topics that interest you.

### 1.3.5 Annexes and worksheets

To support you as you work through this manual there are additional materials available. These are:

#### 1.3.5.1 Worksheet annexes

There are standardised activity sheets, and reflection sheets. You can print these and use the forms as you progress through the programme.

These worksheets can be filled out in training, or as part of extension working such as preparatory work or homework assignments given after training.

#### 1.3.5.2 Country specific annexes

Each manual has accompanying annexes from countries in the programme – Indonesia, Kenya and Nigeria.

These annexes contain local content, case studies and examples, exercises and resources that are relevant for that country. These additional materials are an important and useful addition to individualise materials for different countries and cultures.

Country specific annexes supporting this manual include:

- Annex_Basic Digital Skills_Indonesia
- Annex_Basic Digital Skills_Kenya
- Annex_Basic Digital Skills_Nigeria

### 1.3.6 The SIDP learning journey and certificates of participation

It is expected that learners complete at least the recommended topics and have evidence of their activity (through completed and notarised activity worksheet and reflection worksheets) to qualify for a certificate of participation.

## 1.4 Further guidance on delivering the SIDP programme

For more information on how to use this manual and materials to deliver the SIDP programme please refer to section **Guiding your students on their learning journey** in the Pedagogy Guide.

# 2. First steps

# 2. First steps

This topic introduces you to the basics of using a computer and other digital devices. These devices include computers laptops, tablets, smartphones and other gadgets that learners may or may not have been exposed to.

## 2.1 What is digital?

The term "digital" is currently used to represent everything that a computer uses and produces.

The word "digital" describes a numbering process or a series of number processing. This processing is done by a computer device. Therefore, "digital" is closely associated with activities that use and are generated by computers.

## 2.2 Learning outcomes

By the end of this topic, you will be able to:

1. Identify different digital devices.
2. Understand what the internet and the world wide web are.
3. Identify different types of operating systems.

## 2.3 Introducing you to digital technology

Here are some words and phrases you should know:

- Digital devices are electronic tools come in many forms. Common devices include computers, laptops, tablets, and smartphones (such as the iPhone or Android phone). A digital device allows you to enter data that is processed, and this results in a useful output. The information can then be stored in the device for future use.
- Data is information. Data is entered into a digital device using an input device, for instance via a keyboard, mouse, touchpad, scanners, light pen, or joystick.

- Processing of data to information takes place in the brain of the device which is the Central Processing Unit (CPU).
- Information or output is data that has been processed. Output can be produced either in hard copy (such as paper or printed photos) or soft copy (such as electronic files). Examples of output devices include monitor/screen, printer, and speakers.
- The processed data (information), programs (instructions that tell the computer what to do) and raw data can also be stored for future use on storage devices like SD cards, flash disks, hard disks or optical disks.

## 2.4 Advantages of using digital devices

Digital devices allow the user access to digital technology which has many advantages over more established tools and processes such as pen and paper, the postal service or face-to-face banking.

These advantages include:

- Easier, faster, and better communication e.g., emails, social media and social messaging.
- Fast access to information (local & global) when the digital device is connected to the internet.
- The ability to create a wide variety of content relatively easily.
- The ability to sell and buy online.
- Accessing learning and knowledge and gaining new skills.
- The ability to store a vast amount of data and information.
- Increased accessibility and usability as digital devices can be controlled with text, sound and video.

There are also disadvantages and risks associated with digital technology. These include:

- Digital technology can be expensive to buy, run, insure and replace.
- Expensive technology can be seen as valuable and worth stealing.
- Digital devices require access to electricity, either as the main power source or to charge batteries that allows the device to be portable.

- Access to the internet can be both expensive and difficult to secure.
- Excessive use of technology can have negative effect on your physical and mental health and social relationships.

## 2.5 Types of digital devices

There are many different types of digital devices that you can use. Devices can be expensive but if you are prepared to use less powerful devices, they can be much less expensive. The size of devices can vary, and you need to consider storage and portability when buying one.

The physical form of the device and its contents, such as screen and electronic components, are called hardware. This is because you can physically feel this part of a digital device.

Here is a summary of some typical digital devices.

### 2.5.1 Personal Computer (PC)

A personal computer is a type of computer that is usually placed on a desk and specifically designed to be used by one person at a time. It is made up of different parts that are connected to work as a single entity. The figure below illustrates a desktop computer.

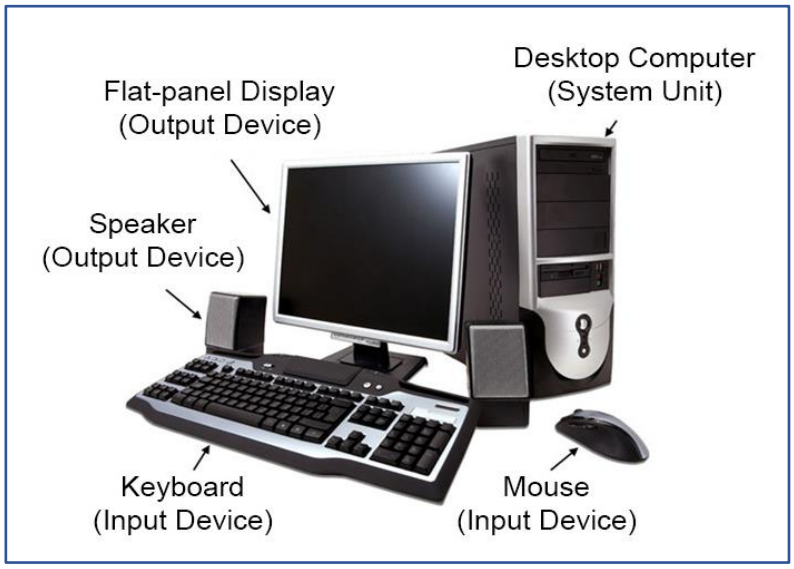



Figure 1: A typical desktop personal computer system

**The system unit (sometimes called a base unit)**

This part of the computer contains the brain of the computer and other parts such as the CD/DVD Drive. You can connect extra devices to the system unit with special cables.

There are two main types of system units:

i. Tower system units are usually placed upright on a table and the monitor is placed next to it.


Figure 2: A typical desktop tower unit PC system

ii. Desktop system units are usually placed flat on a table. The monitor is usually placed on top of it.

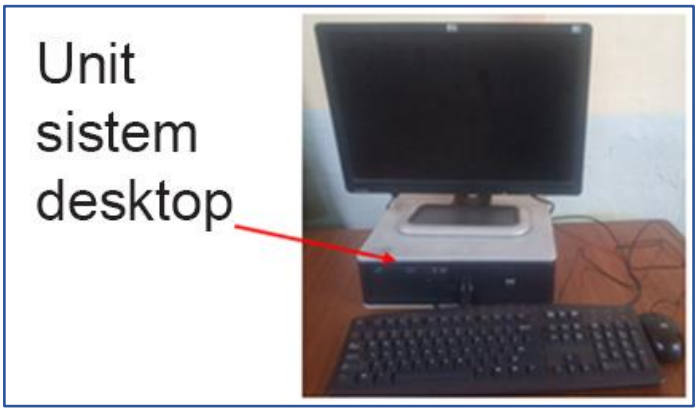



Figure 3: A typical desktop system unit

**Peripheral devices (mouse, keyboard, screen)**

Peripheral devices are parts of the computer systems that help a computer get information in and out. Peripherals help you control and communicate with a computer.

Peripherals are connected to the system unit through special holes called “ports”.

- PS/2 port - Used to connect the mouse and the keyboard
- VGA Port - Used to connect the monitor or the projector
- USB Port - Used to connect the mouse, keyboard, printers, scanners
- AUDIO Port - Used to connect the speakers or headphones

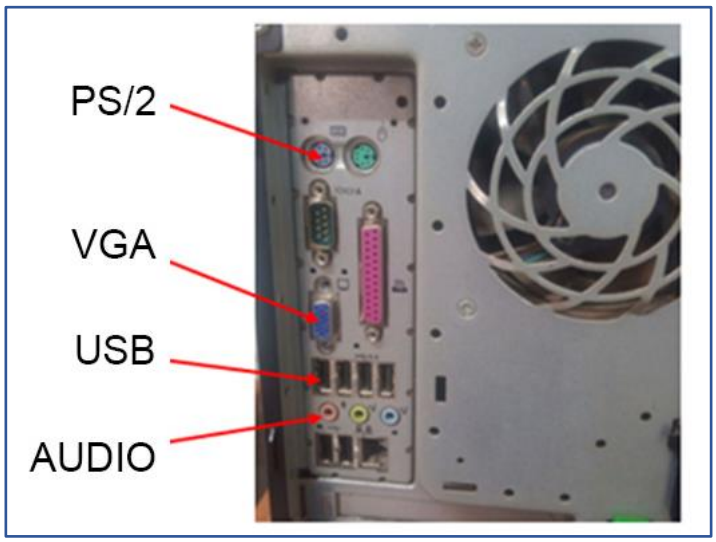



Figure 4: Input and output ports for a desktop PC

**Advantages of a desktop computer over a laptop**

- A desktop computer is relatively cheaper compared to a laptop.
- It has many ports so you can connect more peripheral devices compared to a laptop.
- You can connect to a large screen/ monitor.

## 2.5.2 Laptop

A laptop is a smaller and lighter type of personal computer that is designed to be placed on the lap when working. As these come with batteries you do not need to be connected to an electricity source, except when you need to charge the batteries, this allows you to travel with the laptop. However, they are more expensive than desktop computers.

Figure 5: A typical laptop computer

**Advantages of a laptop over Personal Computer**

- A laptop is portable so you can move with it from one place to another.
- Some peripheral devices are inbuilt such as keypad, touchpad and speakers.
- You can work with a laptop, even when there is no power, since it has a battery which is chargeable.

## 2.5.3 Tablet

A tablet is a mobile device that is smaller and lighter than a laptop. It is operated by touching the screen. It has a chargeable battery. Unlike a laptop its keyboard is the screen.

Figure 6: A typical computer tablet

### 2.5.4 Smartphone

A smartphone is part computer and part mobile telephone. It is a small digital device that is held in your hand. It is mostly used for communication through making phone calls or sending a short text message. However, it also has other capabilities such as taking photos and videos. You can also use a smartphone to connect to the internet.

A smartphone is navigated through touching the screen (commonly referred to as touch screen). In this way it is very similar to using a tablet device.

Figure 7: A typical smartphone

## 2.6 A computer is made up of both hardware and software

A digital device is not one thing, it is made up of many parts. Some of these are physical like the “hardware” and some you cannot see like the “software”.

Software is the computer instructions that direct a computer on what to do and how to do it. Operating systems, sometimes called OS, are very important because it manages the computer's memory, power, hardware, and other software. Operating systems such as Microsoft Windows, or MacOS, are well known, and they do the basic tasks and housekeeping of a computer.

For a computer to be useful we need other programs. These applications, sometimes shortened to “apps”, are types of software that do specific things such as help us write a letter, watch a video, or undertake calculations and manipulate data.

Examples of application software includes Microsoft Word, Microsoft Excel, Word Pad and Calc.

## 2.7 Computer operating systems

An operating system is a program that controls all the functions, including both hardware and software, in an electronic device. For any communication and storage of data to take place in a device, there must be an operating system.

The phrase operating system is sometimes shortened to OS.

| Operating system logos | Operating system names |
|---|---|
|  | Windows Operating system |
|   | Mac Operating system |
|  | Linux Operating System |
|  | Android |
|  | iOS for iPhones |

Figure 8: A table showing some well-known operating systems and their logos

### 2.7.1 Functions of operating system

The operating system in a digital device has many jobs. The operating system makes the tasks you do easier because it uses pictures and symbols to help you

navigate and use a digital device. This approach to controlling and using a computer is called a graphical user interface (GUI) or user interface (UI).

Some jobs an OS does include:

- Managing other software. This can include application software (or apps) that do specific things.
- Control hardware devices such as printers.
- Resource allocation such as accessing and using networks.
- Enable communication between hardware and software.
- Allow users to interact with the software, e.g., gaming, typing.

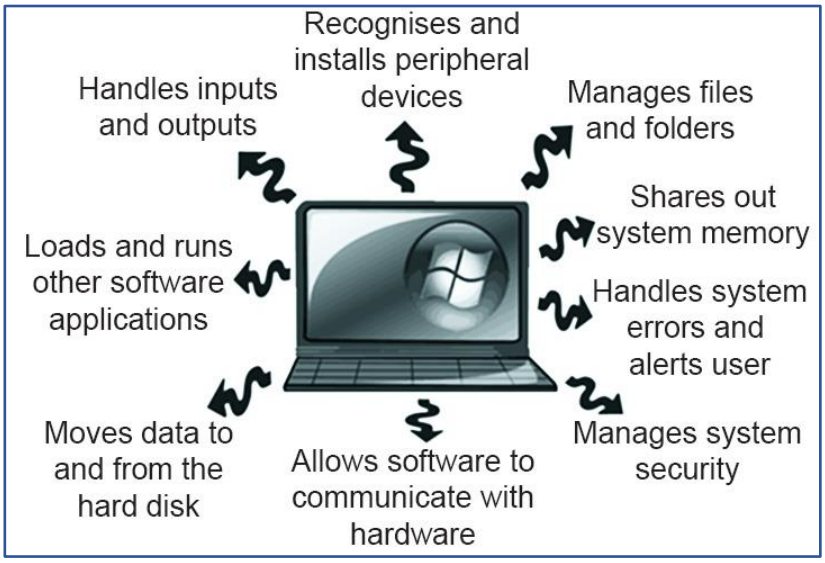



Figure 9: The functions of an operating system in a digital device

## 2.8 Strengths and limitations of different of computer operating systems

### 2.8.1 Apple iOS

Apple's iOS is a popular operating system for smartphones. It works on Apple hardware, including iPhones and iPad tablets. iOS has a simple control system and has strong safety features, known as encryption, that prevents unauthorised access to your data. The system allows you to access to an application shop where users can buy and download free or paid for apps.

### 2.8.2 Microsoft Windows

Microsoft Windows is the most common home and office software operating system. It is also used by many companies and governments. Microsoft Windows user interface include windows which are panel-screens that represent individual applications in a rectangular shape.

### 2.8.3 Apple macOS

Apple laptops use the macOS. Although the graphical interfaces are different, many of the programming interfaces and command-line features are similar. macOS has The Dock which is a bar of controls that is used to check for programs and files that are commonly used, single keyboard keys, including the Command key. macOS is famous for its user-friendly functionalities like Siri, a natural-voice personal assistant, and FaceTime a video chatting software.

### 2.8.4 Linux Operating System

Linux is a secure and customisable operating system. Linux is open-source software. This means that it generally very safe against virus attack and errors, and it is also free to use, although you may have to pay for support. Many electronic gadgets such as internet routers, washing machines, TVs, refrigerators use special Linux software.

## 2.9 Factors to consider when selecting an operating system for your device

- The cost: open-source software (such as Linux) is usually free for personal use, but licensed software (such as Microsoft Windows) needs to be paid for.
- User-friendliness of the operating system.
- Availability and range of applications software that works with the chosen OS.
- Its security features, particularly against viruses e.g., Linux is more secure than the Windows OS. Antivirus software is available for operating systems or may have this built into the OS, e.g., Windows Defender.

## 2.10 Application Software

These are types of software that help you do useful tasks. Applications are installed on a computer and are managed by the operating system e.g., MS Word for document creation, or Windows Media Player for playing videos.

Types of application software include:

- Word processor – for creating documents e.g., MS-Word.
- Database – for keeping records and files e.g., MS Access.
- Spreadsheet – for calculations e.g., MS Excel.
- Desktop publishing – designing publications such as cards or posters e.g., Adobe Page Maker.
- Computer-Aided Design – for technical drawing e.g., AutoCAD.
- Graphics software – for designing and manipulating graphics e.g., Photoshop.

## 2.11 Hardware

Hardware is any part of a computer that can be touched or felt. Hardware devices are categorized into:

- Input devices.
- Output devices.
- Storage devices.
- Processor (CPU).

### 2.11.1 Input devices

These are peripherals or devices that help get information into a computer. Input devices come in many forms.

| | |
|---|---|
|  | **Keyboard/Keypad**<br>A keyboard or keypad is used to enter data into a computer or laptop. One enters data using the keyboard's letter, numerical or special character keys. |

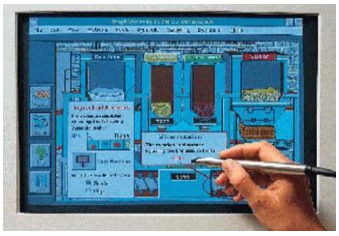
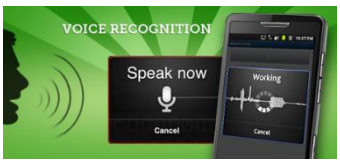
| | |
|---|---|
|  | **Mouse/ touchpad**<br>These are pointing devices. They control a pointer on the screen usually to select commands. |
|  | **Light pen**<br>This is a handheld pen-like device that has a light sensitive point and is used to select options on a touch screen. |
|  | **Scanning device**<br>This is a device that reads data which may be in a form of a photo, printed work or handwritten (hard copies) and converts it to a soft copy (digital copy) that one can manipulate using special software. Mobile phones have scanner apps such as Cam Scanner. |
|  | **Touchscreen**<br>The user selects an item or enters data by touching the screen of a laptop screen, desktop monitor, tablet or smartphone screen. |
|  | **Digital camera**<br>Used to take photos that can be stored in a computer for sharing or to be edited |
|  | **Microphone**<br>An input device that is used to enter spoken data into a computer. It mostly used during online meetings or teleconferencing |

Figure 10: Input devices

## 2.11.2 Output Devices

These are devices that allow you to access processed information from devices. There are generally two types of output device:

- Soft copy output devices – this is output that can only be seen or heard
- Hard copy output device – this is an output device that can be touched or felt

| | |
|---|---|
|  | Monitor/Screen<br>It's the most commonly used soft copy output device. Displays processed information in the form of text, picture and video. |
|  | **Speaker**<br>It gives output in the form of sounds. The speakers are either inbuilt or external.<br>Internal speakers - These are inside the computer<br>External Speakers - These are bought separately |
|  | **LCD Projectors**<br>Usually connected to devices to display output to a larger audience during conferences or training. |

Figure 11: Hard copy output

# 2.12 Activity: Recap the fundamentals of computing

For the activity you will:

- Identify the operating system on your device.
- Identify other programs/apps on your device.

- Find out the uses of the programs/apps in your device.

After the activity, you should reflect and record your findings.

- Fill in the table below to share your thoughts on digital devices, the programs you have and their importance.

For a blank activity and reflection template please see the accompanying annex. Annex_Activity and reflection template.docx.

# 3. Turning on your digital device on

# 3. Turning on your digital device on

Devices need to be powered on. Portable devices use batteries, so usage needs to be managed, to ensure you do not run out of power.

## 3.1 Learning outcomes

By the end of this topic, you will be able to:

- Turn a computer device on.
- Hibernate a computer device.
- Turn off a computer device.
-

## 3.2 Turning on devices

You need to switch a digital device on so that you can use it. Devices may need to be switched on and off to update software, or to reset the device to fix a problem.

### 3.2.1 Turning on a laptop (Windows 10)

Here are few simple steps you need to take so you can turn on your Windows laptop safely.

1. Ensure its battery is charged or plug the laptop charger to the socket and switch on the **power socket**.
2. Press the **power** button
3. Wait for the laptop to turn on.

**Note:** The power button can be on different places depending on the laptop type. For instance, it can be on the left or right under the screen or to the left or right on the side of your keyboard

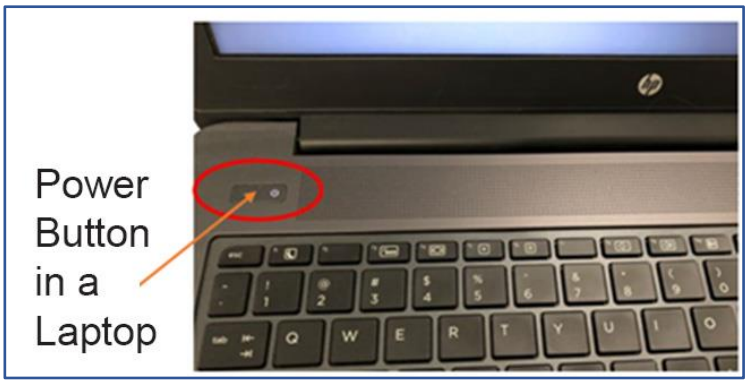



Figure 12: A typical location of a power button on a laptop

### 3.2.2 Turning on Desktop computer (Windows 10)

Here are few simple steps you need to take so you can turn on your Windows desktop safely.

1. Check the power cables for both the monitor and the system unit are both connected to the socket.
2. Press the **power button** of the **monitor**. This is to turn the screen on
3. Press the **power button** of the **system unit**. This is to turn the PC on
4. Wait for the computer to turn on.


Figure 13: Typical location of a power button on a desktop PC

### 3.2.3 Turning on a tablet

Here are few simple steps you need to take so you can turn your tablet on safely.

1. Make sure the tablet is fully charged.
2. Press the **power button** ⏻ (located on the top or right edge of the tablet).
3. If there is a sim card, then it will prompt you to **type in your PIN**.
4. Wait for the tablet to turn on.

### 3.2.4 Turning on an Android Phone

Here are few simple steps you need to take so you can turn your Android phone on safely.

1. Press and hold the **power button** (located along the top or right edge of the phone).
2. Wait for your phone to turn on.
3. **Type in your PIN.** If you have set up a PIN, enter it to access your phone.

### 3.2.5 Turning on an iPhone

Here are few simple steps you need to take so you can turn on your iPhone safely.

1. Press and hold down the **"Sleep/Wake" button** again until the Apple logo appears.

## 3.3 Activity: Turning on (powering up) your device

- You will now switch on your device.
- Are you able to help other people and switch on their devices as well?

For a blank activity and reflection template please see the accompanying annex.
Annex_Activity and reflection template.docx

## 3.4 Hibernating a device

If you are going to take a short break from working on your device you can put it to sleep, i.e., hibernate it, rather than switch it off. This saves you time, while also reducing the amount of power used by the device. This option is mostly available for laptops and might not be available for all PCs.

1. Click or tap the **start menu,** or the **start button**.
2. Click **settings** icon. ⚙
3. Click **system** icon.
4. Click **power and sleep** option.
5. Choose the length of time, in minutes, that you want to hibernate or sleep.

### 3.4.1 Importance of hibernating

Hibernating a device is important because it:

- Saves on power consumption of your device and increases battery power availability.
- Keeps your device and data safe. People cannot gain access to your device while you are away. They will be forced to enter security details to access your device and information.
- Allows you to start working with your open apps on your data from the point you hibernated the device. You don't need to start up your device and then re-open all the programs and work files you were using.

## 3.5 Shutting down/turning off a device

When you want to switch off your device there are certain procedures that need to be followed so as not to damage the device.

### 3.5.1 Shutting down a Computer (Windows 10)

1. Click or tap the **start menu** or the **windows button** ⊞ (Located in the bottom left Corner of the screen).
2. Click on the **power button.**

3. From the options available, click **shut down.**
4. Wait for the computer to shut down.

## 3.6 Shutting down a tablet

1. Press and hold the **power button**. You will see the device options menu.
2. Touch the **Power O**ff Option.

### 3.6.1 Shutting down an Android phone

1. Press down on the **power button** for a few seconds (sometimes called a long press) the power button.
2. You will see options (depending on your phone type).
3. Touch **power off** option.
4. Some phones will require you to confirm by touching power off again.
5. The phone is turned off.

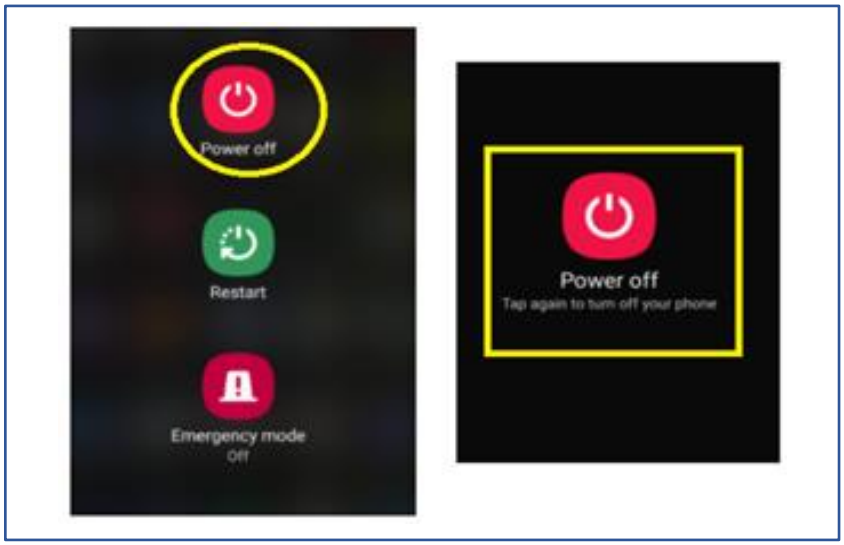



Figure 14: Examples of android OS power off options

### 3.6.2 Shutting down an iPhone

1. Press and hold the **"Sleep/Wake" button** on either the top or the side of your device (varies by model) and hold it for a few seconds until you see the words "slide to power off".
2. Swipe on the words **“slide to power off”** to power off your device.

## 3.7 Activity: Safely turn off your device

1. Can you turn off your Device(s)?
2. When do you turn off your device(s)?

After you have completed the activity, you should reflect and record your work.

For a blank activity and reflection template please see the accompanying annex.
Annex_Activity and reflection template.docx

# 4. Restarting devices

# 4. Restarting devices

You will need to restart your device if:

- You have hibernated your device to save power or for security reasons.
- When the computer is not responsive.
- When either the keyboard or mouse suddenly stops responding or working.
- When the computer asks for an update, or you manually update your device.

## 4.1 Restarting a computer/laptop

1. Click or tap the **start menu** or the **windows button** (located at the bottom left corner of the screen).
2. Click on the **power button.**
3. From the options available click **restart**.
4. Wait for the computer to restart.

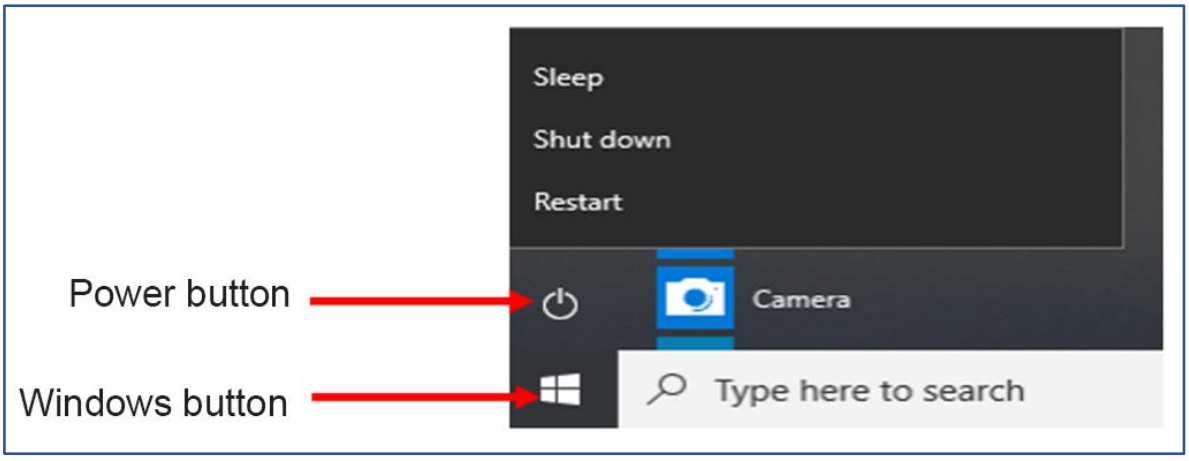



Figure 15: The location of the power and windows icons on a Windows laptop or PC

## 4.2 Restarting an Android Phone /Tablet

These steps are used to unlock your phone using a screen pattern or PIN.

1. Long press the **power button**.
2. You will see options as in the figure below.

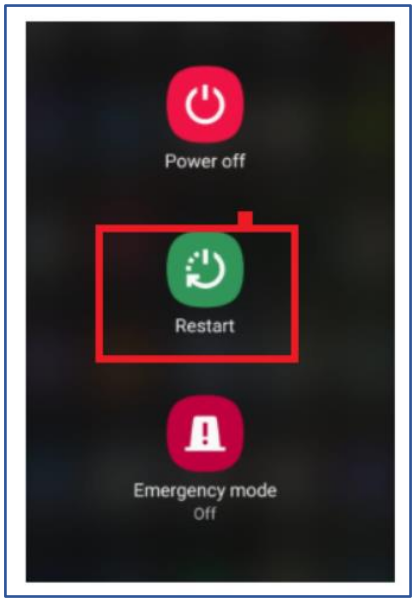



Figure 16: The location of the Restart button on an Android phone or tablet

3. Touch the **Restart** option.
4. Some phones will require you to confirm by touching the restart option again.
5. The Tablet will then Restart.

## 4.3 Restarting an iPhone

1. Press and hold the **volume button** and the **side button** until the power off slider appears.
2. **Drag the slider**, then wait 30 seconds for your device to turn off.
3. The device goes off and then on again.

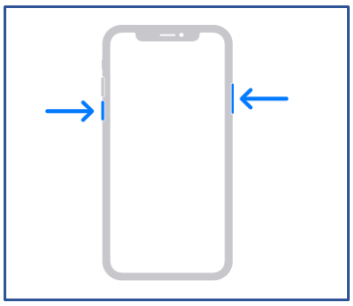


Figure 17: How to restart an iPhone

## 4.4 Activity on restarting a device

1. Can you restart your Device?
2. When do you restart your device?

For a blank activity and reflection template please see the accompanying annex.
Annex_Activity and reflection template.docx

# 5. Health and safety while working with digital devices

# 5. Health and safety while working with digital devices

Long usage of digital devices can be unhealthy for you. Some of the problems are:

- Eye strain and headaches.
- Wrist strain and limb fatigue.
- Back and neck pain.
- Body fatigue.

## 5.1 Learning outcomes

By the end of this topic, you will be able to:

- Use good practice in health and safety while working with the electronic devices.

## 5.2 Staying healthy and safe when using a PC or laptop

Here are some simple tips for staying healthy and safe when you are using a digital device.

- Avoid using a flickering monitor. This can hurt your eyes and give you headaches.
- Adjust the brightness of the monitor/ phone or tablet screen to a comfortable level for your eyes.
- Take frequent breaks from using a device, if possible, after every 30 minutes.
- Avoid positioning the monitor/screen so that it is reflecting other light into your eyes.
- Make sure that your hand/ arm is supported when using mobile devices for long periods.
- Avoid eating and drinking to prevent accidental spillage on the computer during use.

- Position your laptop/ PC on furniture that does not strain your body:
    - The table should be of the right height relative to the seat to provide comfortable hand positioning.
    - The seat should have an upright backrest and should be high enough to allow the eyes of the user to be level with the top of the screen.
    - Do not place the laptop or the keyboard (if using a desktop computer) at the edge of a table. Leave some room where the hands can rest and be supported by the table when typing.

## 5.3 Precautions to take when you use smartphone or tablet

Here is a brief checklist to help you take appropriate health and safety measures when using your mobile device.

- Lock your device when not using it and use the security lock code.
- Disable Bluetooth, if not in use.
- Smartphones have a unique IMEI number. Key in *#06# to find yours, record it, and keep it safe, this allows you to identify your phone should you lose it.
- Only unlock the phone when you need to use it.
- Regularly delete unwanted content.
- Keep your phone out of sight in your pocket or handbag when not in use. Don’t attract attention to your phone when you are carrying or using it in the street.
- Don't leave your phone unattended.
- Be careful who you lend your phone to.
- Report a lost or stolen phone to the police immediately and insist on receiving a written acknowledgment.
- Inform your Service Provider if your phone is stolen or lost.
- Warning: Access or forwarding any content, which is pornographic in nature, is a generally a punishable offence in most countries.

## 5.4 Activity: Analyse how you use your digital device

Take a few moments to consider the following:

- Do you use security codes (such as a PIN number or face recognition) to protect your device?
- How often do you use your digital device? Do you take regular breaks?
- Are you aware of people around you and what they are doing when you are using your digital device?
- Do you update your device regularly?

After you have completed the activity reflect and record your work.

For a blank activity and reflection template please see the accompanying annex.
Annex_Activity and reflection template.docx

# 6. Buying a digital device

# 6. Buying a digital device

By the end of this topic, you will be able to:

- Know the factors to consider when buying a digital device
- Be able to check the specifications of a digital device

Purchasing a digital device is expensive. Consider what you will use it for and how long you will require it before making a purchasing decision. The performance of older devices deteriorates rapidly. Also consider the ongoing running costs of the device, power and internet/phone access.

Here is a quick checklist for you to consider:

- Memory.
- Processor speed.
- Storage (disk space).
- Cost.
- Any specific needs for accessibility (for PCs).
- Monitor.
- Warranty and support.

## 6.1 How to check the specifications of computer

Find out what kind of operating system is being used. If it is Windows:

1. Click on the **Start** button.
2. Click on the gear icon for **Settings**.
3. In the Windows Settings menu, double-click on **System**.
4. Scroll down and select **About**. You will see specs for your processor, RAM, and other system information.

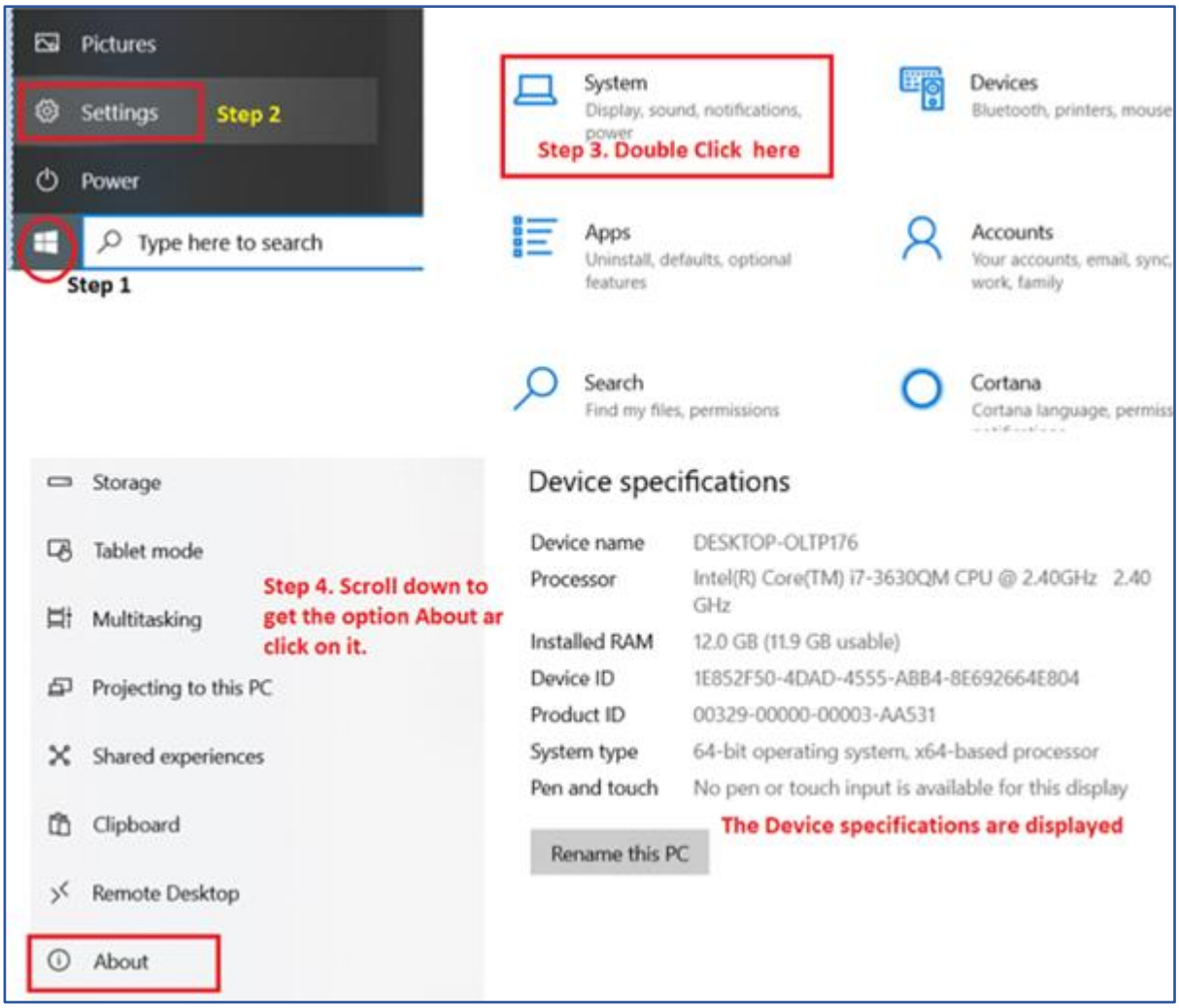



Figure 18: How to check for specifications on a Laptop with Windows 10

## 6.2 Activity: Check system specifications

1. Check the specifications of your device (laptop, desktop, tablet, smartphone).
2. Record the specification of your device.

Remember, for a blank activity and reflection template please see the accompanying annex.

Annex_Activity and reflection template.docx

# 7. Fixing problems with your device

# 7. Fixing problems with your device

By the end of this topic, you will be able to:

- Troubleshoot and fix problems with your digital device

Troubleshooting refers to finding out the cause of a problem and fixing the problem. Some basic troubleshooting skills will save you time, money, and stress. Useful principles are:

- Be methodical.
- Start with the simplest solution.

Here are some of the challenges one may face and how to troubleshoot them.

## 7.1 The computer does not turn on

1. Check if the computer is connected to the main power.
2. Ensure that the power cable is correctly connected to the device.
3. If it still doesn't turn on try using another power main supply or socket.
4. If it's a laptop, check whether the battery has enough power/charge.
5. Remove the laptop battery and reinsert it correctly.

## 7.2 The monitor/screen is not on (PC)

1. If you do not see a blue, green or orange light, then the monitor is not on. Switch on at the socket, then press the power button.
2. Check whether the power cable is connected to the socket correctly.
3. If still it doesn't turn on, check the connection between the system unit and the screen.
4. If it's a laptop try and get a professional to fix it, as it may be a bigger problem than you can solve.

## 7.3 Computer stops responding (hangs)

1. Press the keys **ctrl + alt + delete** at the same time.
2. The following window will appear.

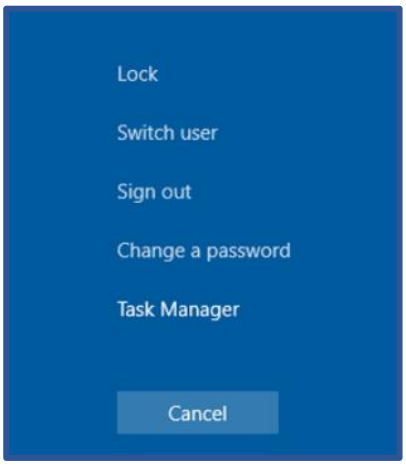



Figure 19: The Task Manager screen that appears if you press Ctrl+ Alt + Delete

3. Choose the **task manager** option.
4. The following window will appear.

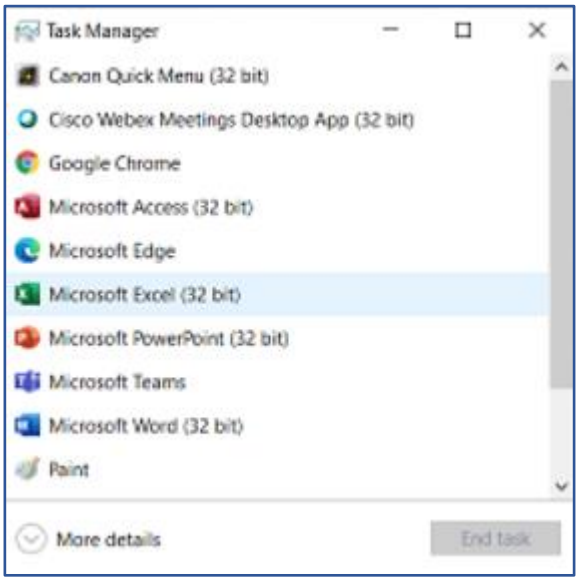



Figure 20: Select the program (or app) to close that is causing

5. From the list **choose the program that is non-responsive** then click **end task**.

6. If the above does not work, long press the power button to shut down the computer, then turn it on again.

## 7.4 Error messages

1. When an error message appears on the screen, and you are unsure about it, click **cancel** or press the **escape key** on the keyboard.

## 7.5 Mouse not responding

1. Check the connection between the keyboard and the system unit.

## 7.6 Keyboard not responding

1. Check the connection between the keyboard and the system unit.

## 7.7 Wireless mouse not responding

1. Move the mouse around to see if any light comes on.
2. Make sure the mouse has batteries.
3. Ensure the mouse is not very far away from the computer.

## 7.8 Laptop Mouse touchpad not working

1. Try enabling and disabling the mouse touchpad by pressing the **FN key + function key**. Try this a few times.

## 7.9 Activity: Troubleshooting and fixing problems

1. What are some of the common issues you experience when working with your devices?
2. Are you now able to overcome them?

After the activity you should reflect and record your findings.

1. Turning on and shutting down your device.
2. What to look out for when buying a device
3. basic troubleshooting on your device.

For a blank activity and reflection template please see the accompanying annex.

Annex_Activity and reflection template.docx

# 8. Navigating your digital device

# 8. Navigating your digital device

This topic covers the basics of operating your device, navigating around different locations in your device, and using input and output devices to interact with your device.

## 8.1 Learning outcomes

By the end of this topic, you will be able to:

1. Use a keyboard and a mouse and touch screen to input text.
2. Open and close apps and tabs to navigate around your device.
3. Identify the standard icons on your device.
4. Outline the difference between an input and output device.
5. Use the commonly used shortcut keys.
6. Use the various keyboard keys.
7. Activate verbal controls on your device.

## 8.2 Computers and mobile digital devices

This topic has options for you to follow for both computers (such as desktops or laptops) and mobile devices (such as smartphones or tablets).

This topic begins with a brief explanation of basic digital navigation skills that will be useful for you to learn.

## 8.3 Basic navigation skills

### 8.3.1 How to use a mouse

A mouse is a pointing device that helps you use a computer system without using a keyboard.

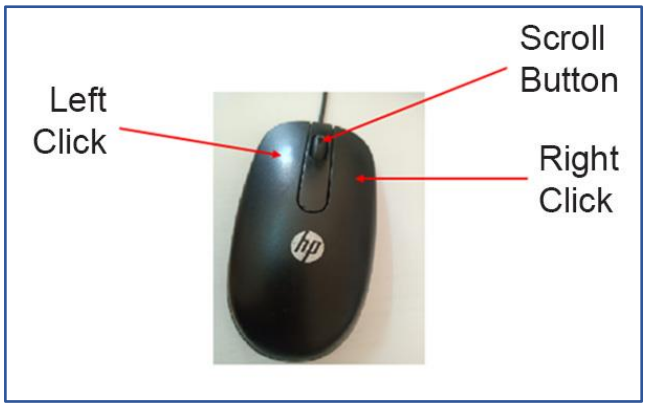



Figure 21: A typical mouse and its buttons

The mouse is a computer input device used to move a “cursor” around a screen. A cursor is a symbol that tells you and the computer where the mouse is currently positioned. You can use the cursor to turn on and off apps and programmes, locate and move files and folders.

Here are some ways that a mouse is used:

- **Left Clicking**. This is pressing the left button of the mouse once. Left clicking selects an object or item.
- **Double Clicking.** This is clicking the left button of a mouse in quick succession. Double clicking opens a program.
- **Drag and Drop**. This means clicking on the button on the left-hand side of the mouse and keeping the button pressed down. Select an icon (remember do not release the button) then drag the icon to move it to another location on the desktop. Drag and drop is also used when selecting or highlighting text.
- **Right Clicking.** Clicking the button on the right-hand side of the mouse displays a list of options.

## 8.3.2 How to use a laptop touchpad

Most laptops have a built-in peripheral called a Touchpad to move a cursor around the screen. You can use a Touchpad in place of a mouse to control a cursor.

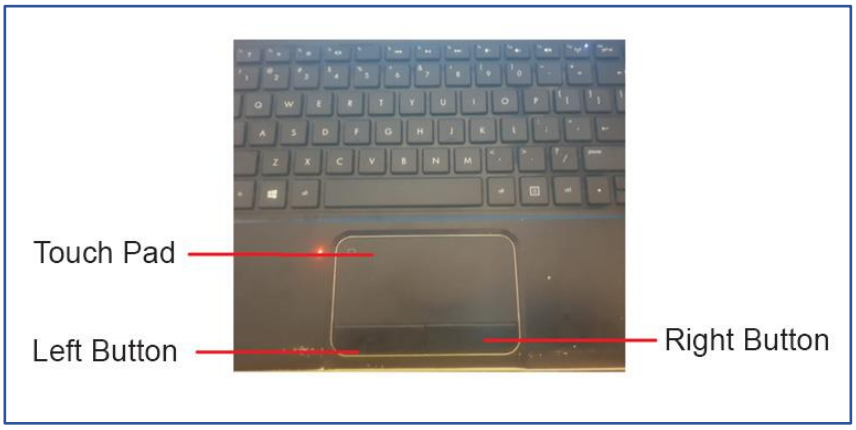



Figure 22: Location and function of a TouchPad

Here is a brief tutorial on how to use a touchpad.

1. Slide one finger along the centre of the **touchpad** to move the cursor
2. **Tap gently** to select, or press the left button beneath the touchpad
3. Press the **button on the right** to Right-click on an object
4. Place your finger along the right edge of the touchpad and slide your finger up or down to scroll.

## 8.3.3 Touch screen navigation

There are three main ways of navigating a touch screen of a phone or a laptop.

### 8.3.3.1 Tapping

This works the same way a mouse click works on a laptop or desktop with a mouse. Tapping is used to open a program, typing, and selecting buttons when browsing the internet.

**To Tap**: Lightly place the tip of your index finger onto the screen and raise it again, quickly. The touch only needs to be for a fraction of a second for the screen to respond, and you don't need to press down hard.

### 8.3.3.2 Swiping

The process of moving from one screen to another is called Swiping.

**To Swipe:** Slowly place one finger on the screen and pull to the right or left, up or down of the screen, then release your finger.

### 8.3.3.3 Scrolling

If the document you are viewing on your screen is long and does not fit on the screen at once, you need to touch the screen to move up or down, left or right to reveal more. This is scrolling.

**To scroll**: Place the fingertip gently on the screen and slowly drag it up or down, left or right. Keep contact with the screen as you do this. When you get to the place on the page you want to view, lift your finger from the screen.

## 8.3.4 Typing on a touch screen device

A touch screen device such as a smartphone or a tablet has an onscreen keyboard. It will look like the figure (Figure 24) below and is a copy of a real keyboard.

You can type on the virtual keyboard by tapping the keys you need.

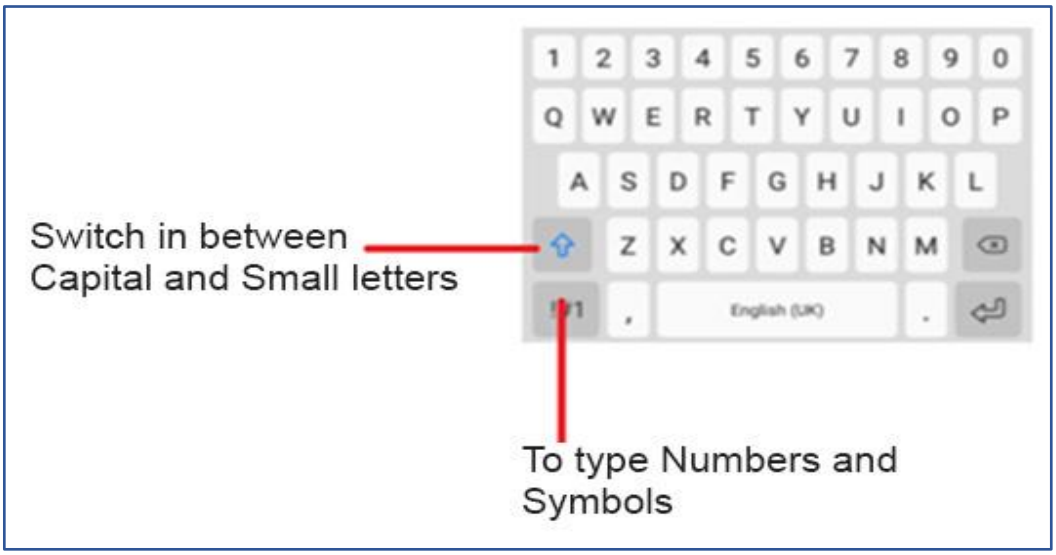



Figure 23: An onscreen keyboard

See section **8.5 Navigating your device** in this manual for more detail on using virtual keyboards.

## 8.3.5 How to use a keyboard

A keyboard is a part of a computer that is mostly used to enter data by typing. A keyboard has different types of keys that do different things.

The five categories include:

### 8.3.5.1 Alphanumeric keys

Alphanumeric keys are the familiar keys that you may have used when typing numbers, letters and special characters like question marks, semicolons, and full stop. These keys include:

- “A to Z”, “a to z”, “0 to 9” and other symbols.
- Caps Lock Key. When it is on, the characters typed appear in capital letters (also called upper case). When Caps Lock is off letters appear as small letters (or lower case).
- Enter Key/Return Key: Moves the cursor to the beginning of a new sentence.
- Tab Key: Moves the cursor along at set intervals on the same line.
- Space Bar: This is the longest key on the keyboard. This inserts a space between words
- Backspace Key: Deletes or erases characters from right to left.


Figure 24: A typical computer keyboard

## 8.3.5.2 Cursor Movement and Editing keys

They are used to move the cursor from one point of the screen to another. They include:

1. Arrow Keys: These move the cursor in the direction the arrow faces
   - Up arrow key - Moves the cursor one line up
   - Down arrow key - Moves the cursor one line down
   - Right arrow key - Moves the cursor to the right
   - Left arrow key - Moves the cursor to the left
2. Insert Key: Used to replace a character at the cursor position
3. Delete Key: Deletes or removes characters from left to right
4. Home Key: Takes the cursor to the beginning of the current sentence
5. End Key: Takes the cursor to end of the current sentence
6. Page Up: Takes the cursor one page up, when there are many pages.
7. Page Down: Takes the cursor one page down, when there are many pages


Figure 25: Editing keys and cursor keys on a keyboard

### 8.3.5.3 Numeric Keypad Keys

It consists of numbers 0 - 9, the addition (+), subtraction (-), multiplication (*) and Division sign (/). For you to be able type numbers using the numeric keypad, always make sure the Number Lock Key is on.


Figure 26: Numeric keypad

### 8.3.5.4 Function Keys

These are keys that are located at the top of the keyboard. They are labelled as F1, F2, F3 through to F12. F1 is mostly used to open the Help window.

Generally, their purpose differs from one program or software to another.


Figure 27: Function keys on a keyboard

## 8.3.5.5 Special Purpose Keys

### 8.3.5.5.1 The Shift Key

This special key works in combination with other keys. It does not do anything if you use it on its own.

- It can be used to get single capital letters. Hold down the **SHIFT key** + **an alphabet key** to get the letter in its capital (or upper case) form.
- It is used to get the punctuation marks on top of the number keys or the symbols on top of certain keys, especially on the alphanumeric section.
- To get the punctuation mark on top of a number key or the symbol on top of a certain key. Press & hold down the SHIFT key before pressing the required key.


Figure 28: The Shift Key

### 8.3.5.5.2 The Control Key

The Control Key, sometimes shortened to CTRL, allows you to use various functions in combination with other keys. These functions are dependent on your operating system, but some typical combinations include:

- **CTRL**+ "**S**" is used to give the command for Save the text/object
- **CTRL**+ "**X**" is used to give the command to Cut the text/object
- **CTRL**+ "**C**" is used to give the command to Copy the text/object
- **CTRL**+ "**V**" is used to give the command to Paste the text/object


Figure 29: The Control Key

#### 8.3.5.5.3 The Escape Key

The Escape Key, sometimes shortened to ESC, generates a special code for a computer. In many programs, it is used when you want to end a task. The Key allows you to “escape”, stop or cancel a task you were doing.

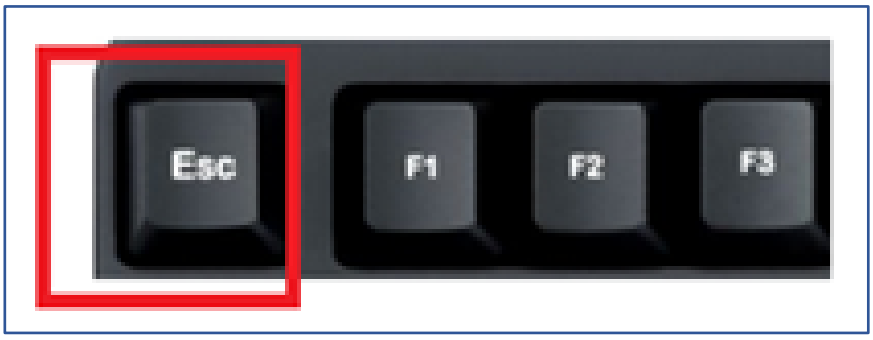



Figure 30: The Escape Key

## 8.4 Navigating a computer or laptop

Below are descriptions on how to navigate the screens of the various electronic devices.

## 8.4.1 Using “Icons”

The first screen seen after turning on a laptop or a computer is known as a Desktop. It consists of small graphics known as Icons. The icons represent software applications, locations, or tasks. Icons simplify using a computer.

Figure 31: A computer desktop with Icons

The Icons in the diagram below are:

- This PC, an Icon that gives you access to the files in this computer.
- Meetings, an Icon that gives you access to files in a folder called Meetings.
- To Read Icon, an Icon that gives you access to a Word file called “To Read”.

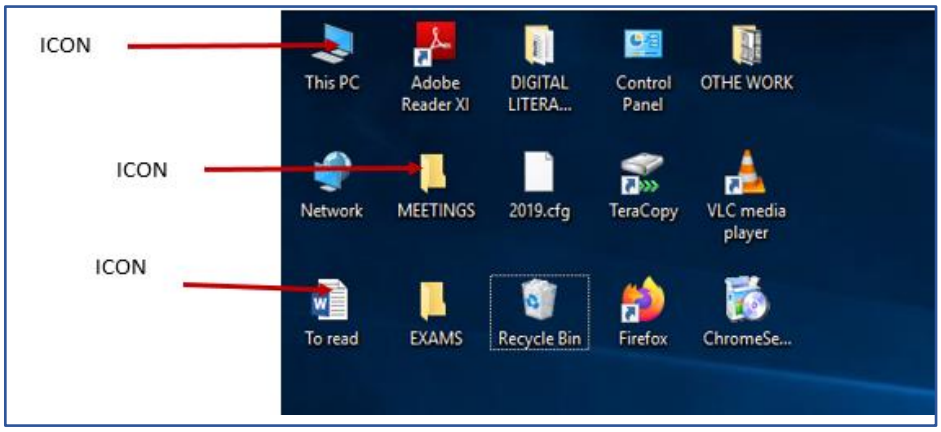



Figure 32: Some Icons and their meanings

### 8.4.2 How to open an Icon on the desktop of a laptop or a computer

There is more than one way to use a desktop Icon on computer.

#### 8.4.2.1 Option one

- Select the Icon with your mouse cursor
- Double click the Icon (Use the left button of the mouse)
- The diagram below shows a selected folder. If you double-click the Icon, then the folder will open

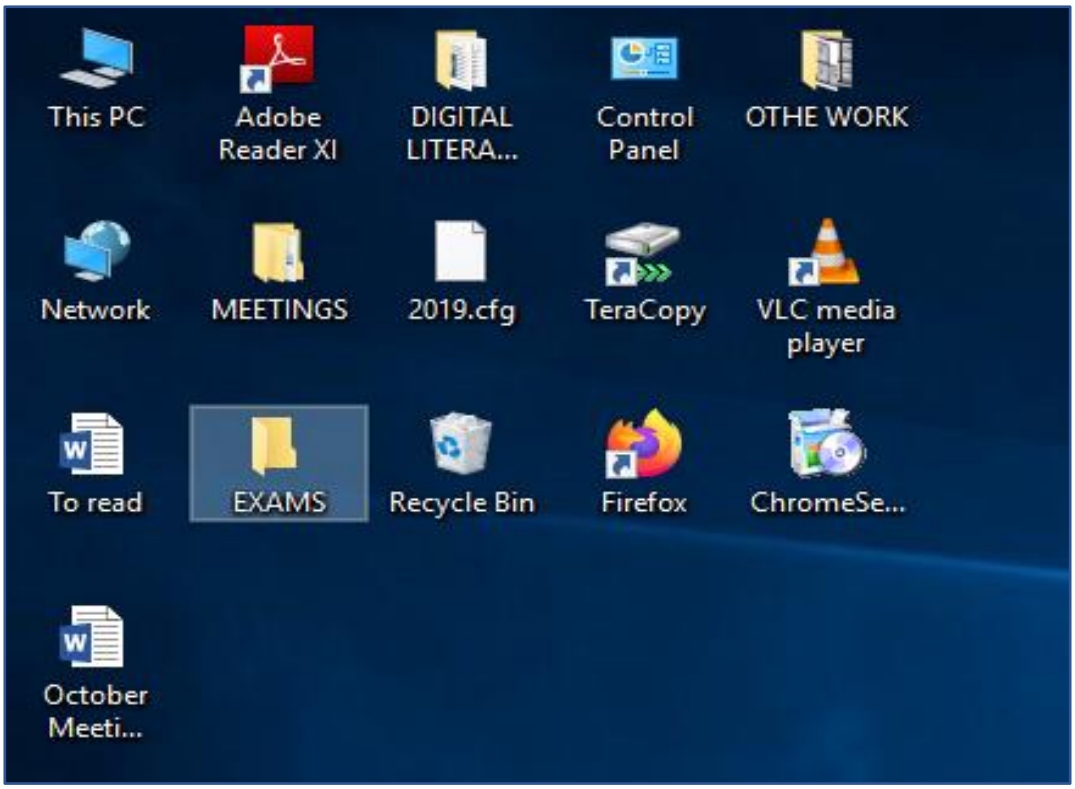



Figure 33: Double-clicking an Icon

### 8.4.2.2 Option 2

- Select the Icon with your mouse cursor.
- Right click on the Icon (use the right button of the mouse).
- From the list that appears choose Open.

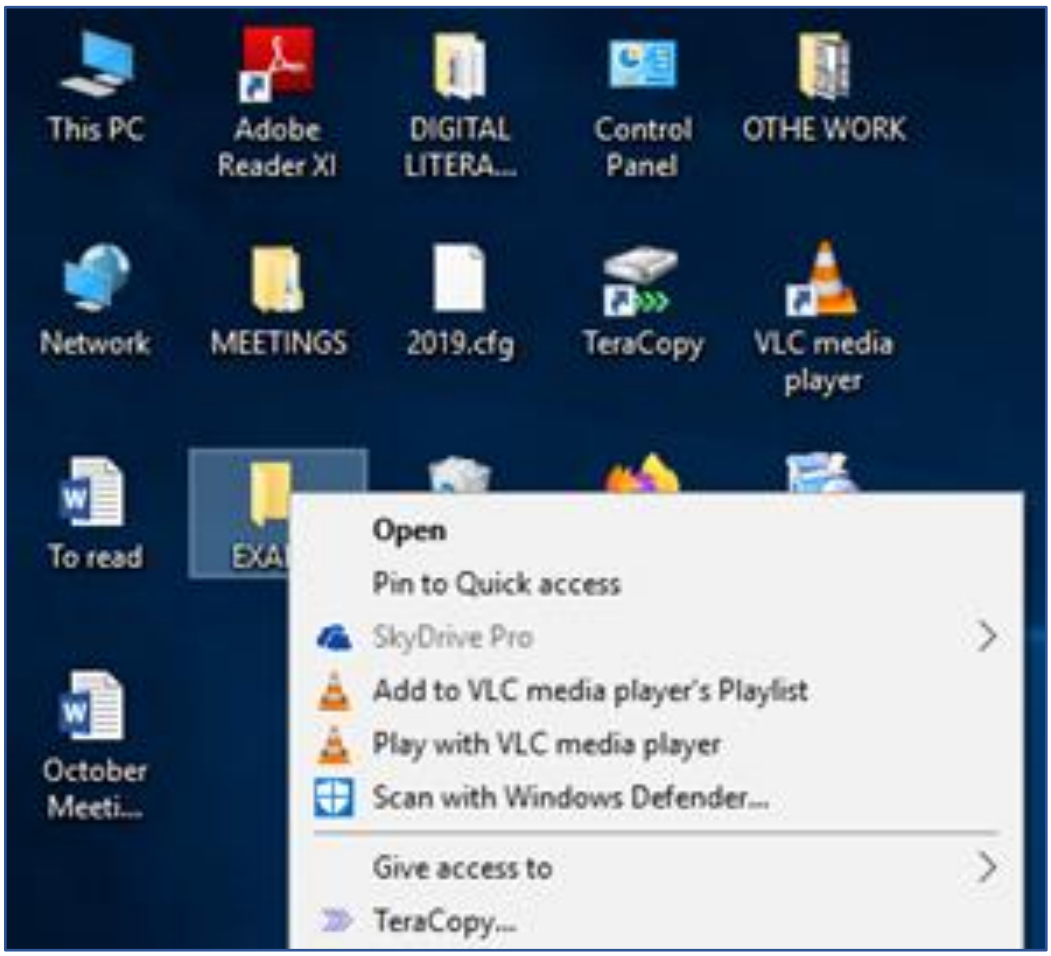



Figure 34: Using "right-click" to open an Icon

## 8.4.3 Using a “Window”

Once an Icon is open a rectangular area called a Window appears. Windows relate to particular programs or tasks you are undertaking.

The diagram below shows a desktop with two windows that have been opened.

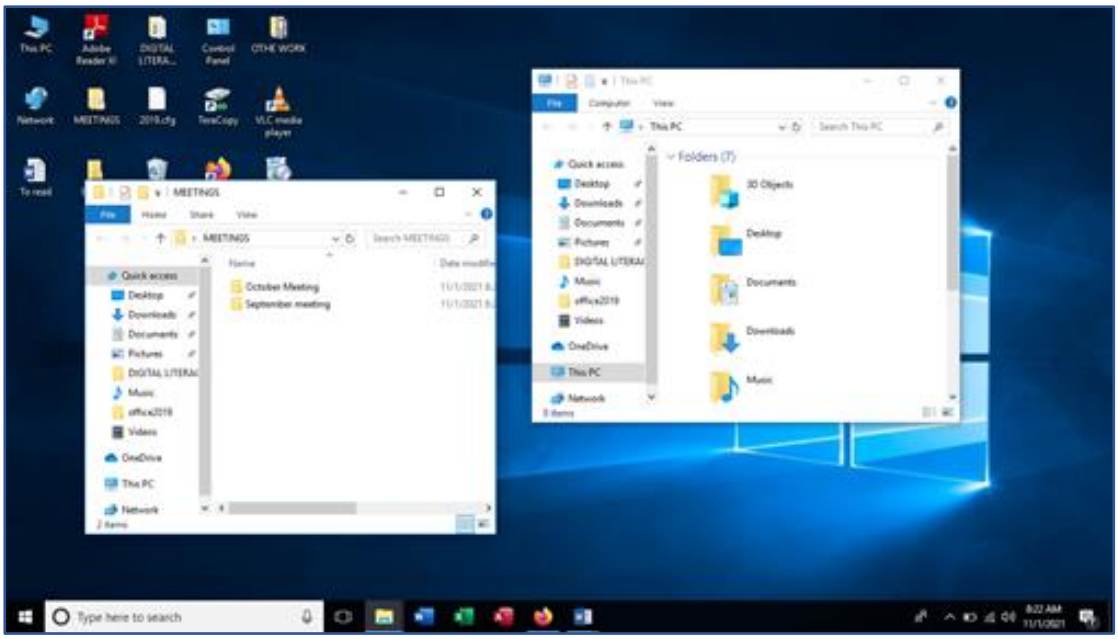


Figure 35: Two Windows open on a desktop

## 8.4.4 Title bar

This is a bar located at the top part of a window. It displays the name of the current running application. It has three buttons located at the right.

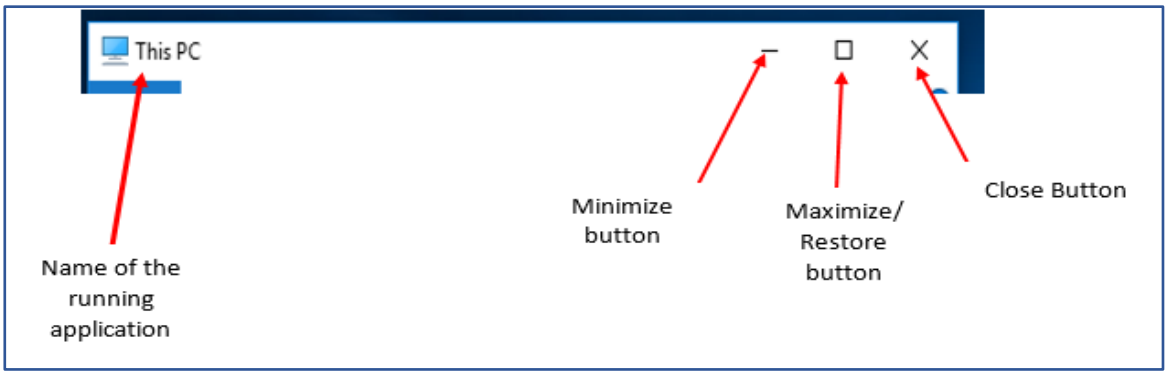



Figure 36: The Title bar in a window allows you to close, expand or shrink a Window

- Minimize Button - When this button is clicked it reduces the whole window to an icon at the task bar.
- Maximize/Restore Button - When this button is clicked it reduces the size of the window. If clicked again it fills the entire desktop.
- Close Button - used to exit an application or program.

### 8.4.5 Task Bar

This is a bar located at the bottom part of the desktop. It has Icons of the most frequently used programs, the Windows Button or the start button, time and date. It also has a box to search for files and folders saved in the computer/laptop.


Figure 37: The Task Bar has many useful shortcuts and frequently used locations and applications

## 8.5 Navigating your mobile device

Smartphones are small and powerful digital devices that are used to make phone calls and send text messages, but they can also be used to access the internet, send and receive emails and many of the tasks you can do on a laptop.

There are many different brands for smartphone including:

- iPhones from Apple.
- Android Phones from Samsung, HTC, Huawei etc.
- Windows Phones from Nokia.

These phones have different operating systems (See section 2.8 in this manual).

You can use your fingers to control the phone, or you can use a stylus. This is a device that looks like a pen or pencil but has no ink. It is used like a pen on the phone/tablet screen. You use it to press on apps and functions and to navigate a smartphone or tablet. If you have the app, you can also use the stylus to write into the mobile device, rather than typing.

Figure 38: A stylus can be used to help you navigate mobile devices such as smartphones and tablets

### 8.5.1 Using your smartphone and its applications

Smartphones use applications, or apps for short to help you do tasks. You will see these standard apps on almost all mobile devices. These include useful tools such as clock (and alarms), a camera, the Gallery App where your photos are stored.

These are normally found on your home screen. The **Home screen** is the screen on your mobile you see when you turn on or wake up your device.

To get back to your home screen at any time press the **home button**.

Figure 39: The location of the Home button on most smartphones

## 8.5.2 Entering information into a smartphone

### 8.5.2.1 Virtual keyboard

You may want to get information into your smartphone. The simplest way is to **tap** where you need to type, and the keyboard will automatically appear.

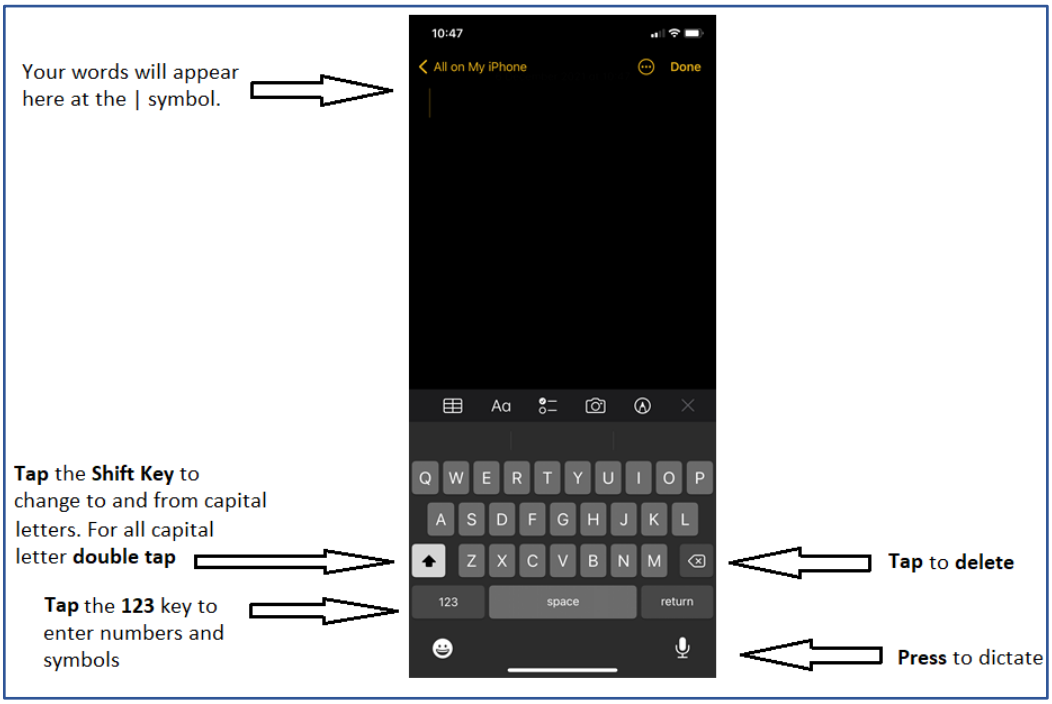



Figure 40: A typical virtual keyboard on a mobile device.

### 8.5.2.2 Dictating, or speak to text

You can also dictate or speak your words into your smartphone. This means you don't have to type at all. See the Figure above and look at the bottom right of the smartphone screen. There is an icon that looks like a microphone.

Some apps allow dictation automatically but some need to be given permission to use dictation.

To enable dictation, do this:

1. **Tap** the **Settings** icon
2. **Tap** the **Keyboard** option
3. Slide the **Enable Dictation** button

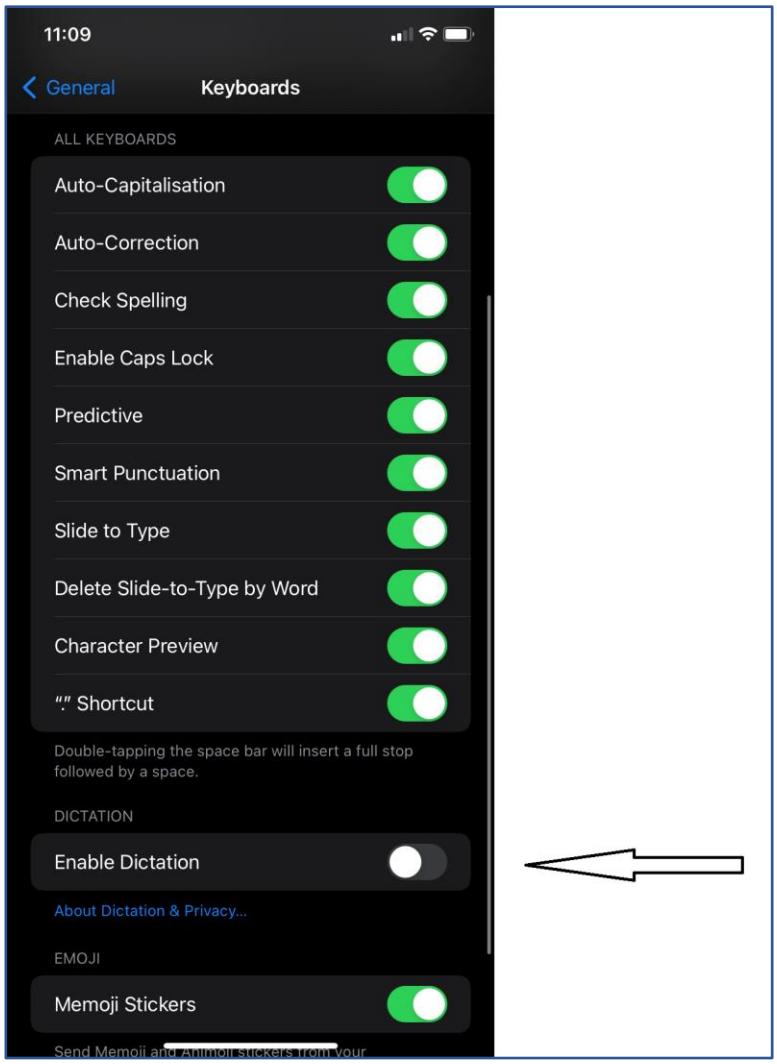



Figure 41: How to enable the Dictation, or Speech to text option on a typical smartphone

To use dictation, do this:

4. You **tap** the **microphone button** and begin speaking.

Your speech will be converted into text and stored in your device – in a notepad app, an email or any other app that supports dictation.

### 8.5.3 Creating a folder and-subfolder in an Android smartphone

Here are step by step instructions to create directories / folders on your smartphone.

1. Open **My file**. You will see internal storage and SD card if your phone has one.

2. To create a folder in SD card, tap **internal storage** to open it.
3. Click on the **3 dots**. A list of options will appear.
4. Select the **Create folder** Option.
5. Type the name of the folder you are creating and tap on **Create**.
6. You can create subfolders in the same way within the folder.
7. Can you locate the folder you have created?

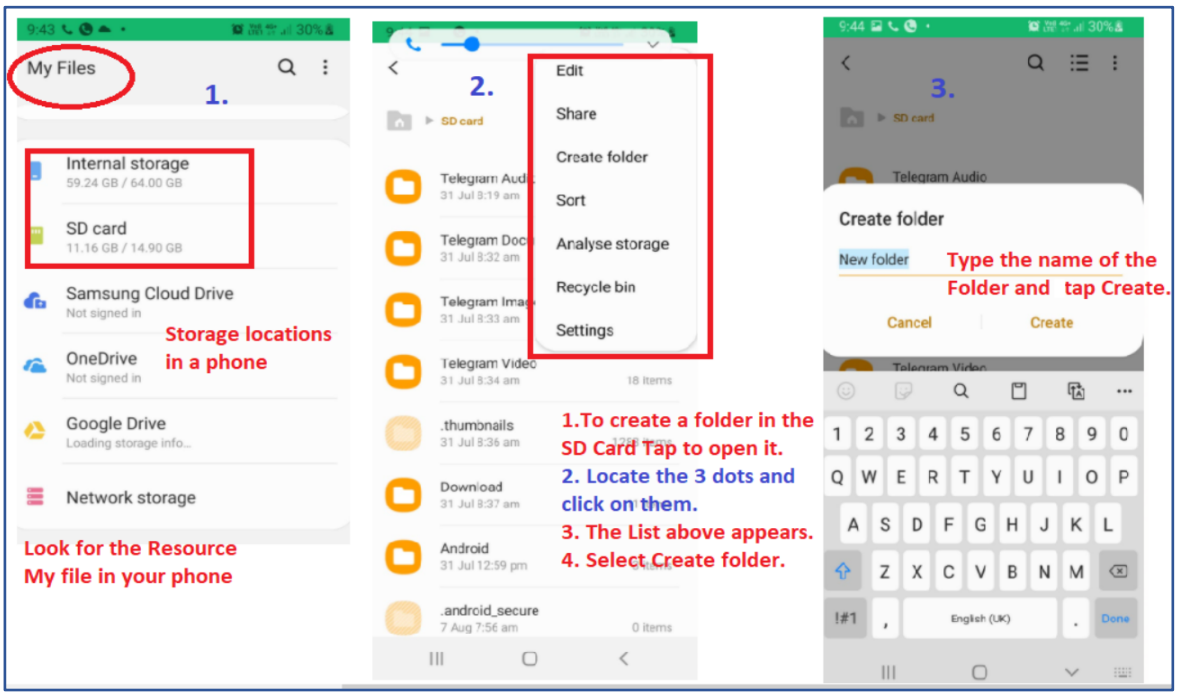



Figure 42: Creating folders/subfolders on an Android smartphone

## 8.5.4 Activity: Using your mobile device

- Create the following SMS messages it appears and send it to a friend of yours
- “I am Learning DIGITAL SKILLS in 1, 2, 3 , 4 … Days”
- Are you able to type using the touch screen keyboard?

For a blank activity and reflection template please see the accompanying annex, Annex_Activity and reflection template.docx.

### 8.5.5 Activity: Creating folders and directory structures

You will:

- Create a folder on your device. Name it “Digital Skills”
- Create subfolders Level 1 and Level 2 in the folder Digital Skills.
- Save a file in one of the folders or subfolders created.

After you have completed the activity reflect and record your work.

For a blank activity and reflection template please see the accompanying annex. Annex_Activity and reflection template.docx.

# 9. Using accessibility features

# 9. Using accessibility features

Accessibility features help people with disabilities to better navigate and operate a device.

## 9.1 Expected learning outcomes from this topic

By the end of this topic, you will have learnt:

1. Accessibility features and their importance.
2. Examples of Accessibility features in your device.
3. To appreciate the accessibility features on your device.
4. How to enable the accessibility features on your device.

## 9.2 How to use accessibility features

### 9.2.1 Magnifier

The **Magnifier Tool** is one of the most useful and easiest to use accessibility features on Windows. It makes the words and pictures on the screen bigger, so it is easier for you to read.

1. To quickly **turn on** Magnifier press the **Windows logo key + Plus sign (+).**
2. To **turn off** Magnifier, press the **Windows logo key + Esc.**

Alternatively, if you prefer to use a mouse:

3. Select **Start.**
4. Select **Settings.**
5. Select **Accessibility.**
6. Select **Magnifier**, and then turn on the **Magnifier** switch.

## 9.2.2 Verbal controls on a typical computer

Windows 10 has built-in voice controls for many of its most popular features including Cortana, to manage apps, files, folders and systems and to ask questions.

1. Click on the **Start** button.
2. Select **Settings**.
3. Click on **Cortana**.

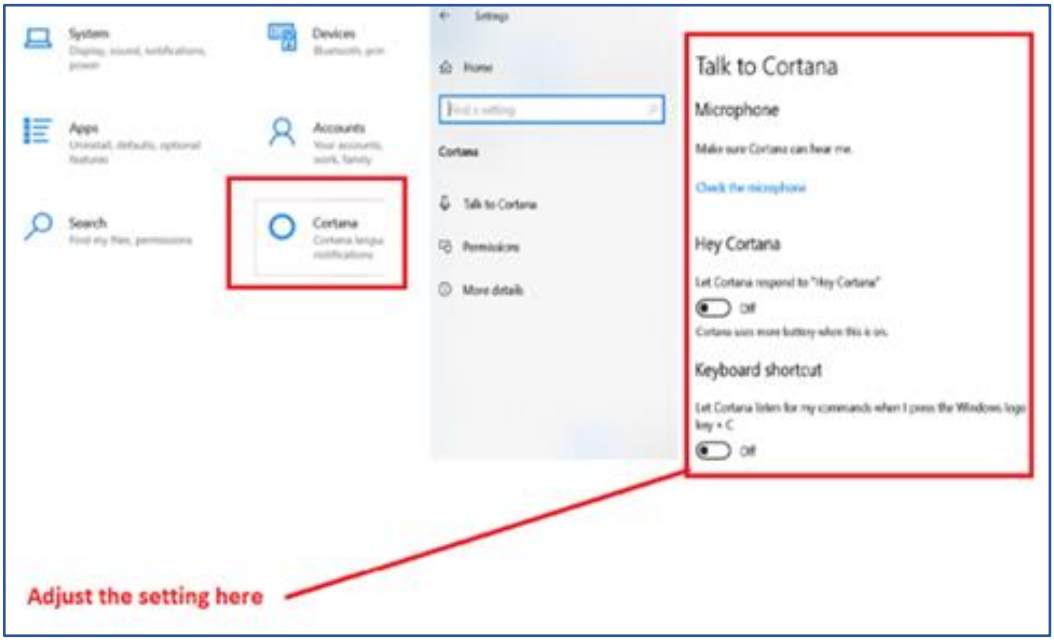



Figure 43: Windows Cortana voice interface

## 9.2.3 Other accessibility features

1. **Voice Command:** Designed for people with disabilities to command the device to take some action.
2. **Touch Screen:** Designed for people who can see and can use their hands to navigate between the options they want.
3. **Braille Display:** A Bluetooth enabled Braille device is used to control the digital device.
4. **Gesture Command:** Mainly used to access specific features, e.g., accessing the phone camera or contacts by doing a specific gesture on the gesture sensor mostly found on top of the phone.

5. **Fingerprint Reader/Scanner:** Used to unlock the phone via biometric sensor at the back of the phone.

### 9.2.4 Other accessibility features on a mobile device

There are useful accessibility features available for users of mobiles devices. Some of these are simple such as increasing the size of words to make things easier or dictating to make entering information easier.

Some more advanced features include:

- Using your voice to control your device.
- Getting your device to read the screen back to you.
- **Warning:** Please be careful. You may not want messages or emails to be read aloud in public.

#### 9.2.4.1 To enable voice control

1. **Tap** the **Settings** app.
2. **Tap** Accessibility.
3. **Tap** the **Voice Access** option.

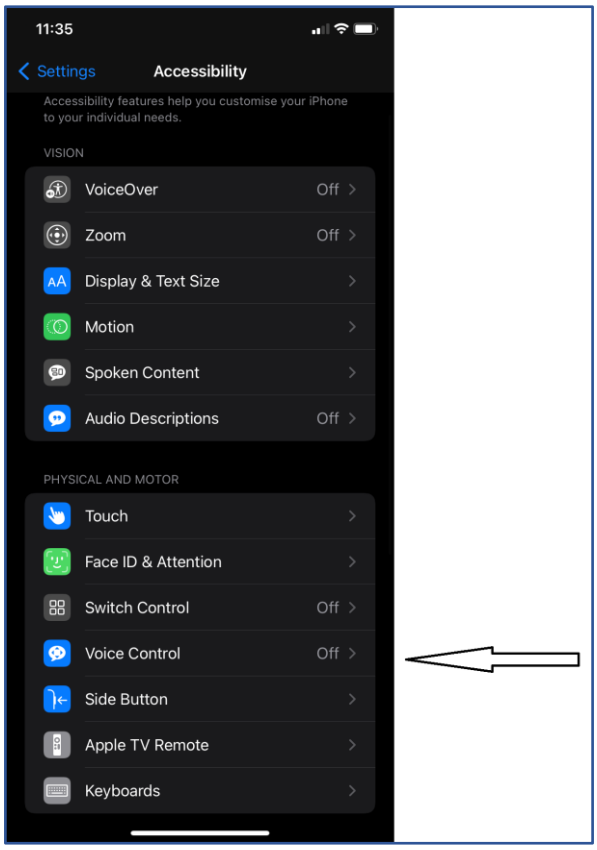



Figure 44: How to enable voice controls on a smartphone

### 9.2.4.2 How to use voice controls

You need to use certain words to communicate with your smartphone if you are using voice controls. Different smartphones have different word command. These are:

- Hey Siri, for iPhone and iPads.
- Hey Google, for android smartphones, Chromebooks, and smart TVs.
- Hey Cortana, for Windows and Microsoft products.

Here are a few sample commands you can use:

- Hey Siri, what's the weather like in town?
- Hey Google, open my email.
- Hey Cortana, set an alarm.

## 9.3 Activity: Using accessibility functions on your digital device

On your device, you will:

- Increase the font sizes.
- Enable the screen reading ability/ Narrator.
- Adjust the screen brightness.

After you have completed the activity reflect and record your work.

For a blank activity and reflection template please see the accompanying annex. Annex_Activity and reflection template.docx.

# 10. Using computer and smartphones safely

# 10. Using computers and smartphones safely

In this topic you will learn:

1. How to keep your device clean and dry and the importance of doing this.
2. How to take care of your device battery.
3. How to keep your device safe from theft and fire.

## 10.1 The importance of keeping equipment clean

Keeping a digital device clean is important for the health of the device and also for your health. Here are some reasons why it's a good idea to keep your equipment clean and in good working order.

### 10.1.1 Laptop and desktop computers

A clean computer:

- Reduces the risk of infection.
- Dust can damage delicate parts of your computer.
- Dust can clog up the cooling fan which in turn can cause your device to overheat.
- Dirt in your keyboard can make the keys less responsive or cause them to stick.
- A clean screen is easier to see and reduces eye strain.

### 10.1.2 Smartphones

Clean phones are good because:

- It prevents clogging of the earpiece and mouthpiece.
- It enhances quality hygiene on the case when you are sharing a phone.
- It prevents dust from accumulating in the earphone hub and charging system.

## 10.2 Step by step instructions to keeping your digital device clean

Below are some ways for looking after a laptop, phone, and a desktop computer.

### 10.2.1 Laptop and Desktop Computer

1. Disconnect from power when fully charged.
2. When on the move, safely pack the laptop into a laptop bag.
3. Keep data backup in external media. This means an external hard disk that you leave in a safe place or use online backup options like OneDrive and Google Drive. This will prevent the chances of data loss in case the laptop stops working, is damaged or is stolen.
4. Install an up-to-date antivirus program to protect your laptop from viruses.
5. Set up a user account and password to prevent unauthorised access to your laptop.
6. Keep your laptop computer well ventilated to avoid overheating. Avoid stacking papers, books and other items around your computer. Allow the fan to breathe.
7. Organize your files into folders and sub folders for ease of access.
8. Dust has the potential to damage your computer and its parts. Use a soft, clean cloth to regularly wipe all parts of your computer.
9. Write down somewhere safe the serial number of your device in case of theft for easy identification purposes for the police or insurance purposes.

### 10.2.2 Phone

1. Use a screen protector.
2. Buy a phone case to keep it safe from accidental knocks.
3. Keep the phone away from moisture and dampness.
4. Regularly wipe your phone clean.
5. Regularly clear the computer memory of unused files and folders. Clear your phone cache. When apps run, they may leave some files behind taking up memory space in your phone.
6. Regularly update the operating system in your smartphone.

7. Once the phone battery is fully charged, disconnect it from power. This prevents damage to the phone battery.
8. To save on the phone battery and increase performance, close all the apps after use. Avoid having many apps opened at the same time.
9. Turn off all services you are not using. For example, Wi-Fi, live wall papers and mobile data. This slows down battery usage.
10. Don't leave your phone in the hot sun for a long period of time because it will overheat.
11. Add an external SD card to increase the available memory space. This frees up the phone's internal memory, hence improving the phone's performance.
12. Identify a safe place to keep your phone when not in use.
13. Special software can be used to lock your phone in cases of theft.
14. Connect only to trusted Wi-Fi's.

## 10.3 Charging batteries, and managing risk of fire

Portable computers work using rechargeable batteries. Do not let your device run out completely of power, and do not overcharge it. This will increase the life of the battery.

Overcharging a battery may cause it to overheat and start a fire.

The best time to start charging is at 15% of the battery. The optimal charge level is 40% -80%. Do your best to maintain the charge at that level.

## 10.4 Activity: Familiarise yourself with safety features of your device

You will:

- Find out the IMEI number of your phone or the serial number of your laptop.
- Find out if you have put into place the safety measures to safeguard your laptop or phone.

After you have completed the activity reflect and record your work. Record your thoughts on:

- How to use your devices safely.
- How to take care of your device.

For a blank activity and reflection template please see the accompanying annex. Annex_Activity and reflection template.docx.

# 11. Creating account and creating passwords

# 11. Creating accounts and creating passwords

A user account is an online place that stores the user's information identified by a username and protected by a password, e.g., WhatsApp account, a Facebook account, a Twitter account, or an ecitizen account.

A password is a string of characters used to verify the identity of a user during an authentication process. Passwords are typically used together with a username, or user identification (sometimes called User ID). They are designed to be known only to the user thus allowing the user, and no one else, to gain access to a document, device, application, website, or a social media platform.

A username/user ID is a sequence of characters that uniquely identifies a user on a computer system, a computer application, a website, or a social media platform. Other words used to mean the same term are login name, logon name, sign in name or sign on name.

## 11.1 Expected Outcome from Creating Accounts and Password

When you have completed this topic, you will have:

- Improved security when using a computer/mobile device, application, or social media site.

## 11.2 Creating Accounts and Password

### 11.2.1 Purpose of a Password

While accessing the internet, a user needs a user ID and password to prevent unauthorised people from accessing the information stored on their device. Such information may include details of bank accounts, college account, emails, social media accounts, e-citizen account and any other account created online.

It is therefore important to learn how to create secure passwords and how to manage them to protect your information.

### 11.2.2 Bad password practices

Passwords are essential to the security of your personal information. It is important that you avoid bad password practices such as:

- Using simple formulaic passwords.
- Sharing passwords.
- Writing down passwords in physical locations that are easy to find.
- Reusing the same password for some or all your accounts.

It is important to create a good password, but also to keep the password safe. Additional software called a Password Manager can help you with this.

## 11.3 Activity: Create an online account

For this activity you will:

- Open a Google account.
- Open a Yahoo account.

After you have completed the activity reflect and record your work.

For a blank activity and reflection template please see the accompanying annex. Annex_Activity and reflection template.docx.

## 11.4 Using an online account: Google classroom

Google Classroom integrates many Google tools to support learning for teachers and students. This allows teachers to set assignments, have work submitted by students, to mark, and to return graded papers online.

Classrooms used many google services including Google Docs, Google Sheets, Google Slides, Calendar, and Gmail. Classroom and can be supplemented with Google Hangouts or Meet for video meeting.

Google Classroom is free to use.

### 11.4.1 Google Classroom assignments

A teacher can set assignments by uploading documents the assignment. This can also include extra information and a place for students to do the assignment.

A student will receive an email informing them that an assignment is waiting. The student will complete the assignment and turn the assignment in to be marked by the teacher.

There are extra tools for teachers that can help with making announcements to a whole class, storing learning materials online, and checking that assignments are original and not copied from other students or other sources.

For more information see Google Classrooms.

## 11.4.2 How to use to log in to Classroom if you are a student

To use Google Classroom take the following steps:

1. Navigate to Google Classrooms (https://classroom.google.com/u/0/h)
2. Sign in on your computer or mobile device and join classes.
    - Make sure you have logged on with the correct account e.g., your school or college account, and not a personal account.

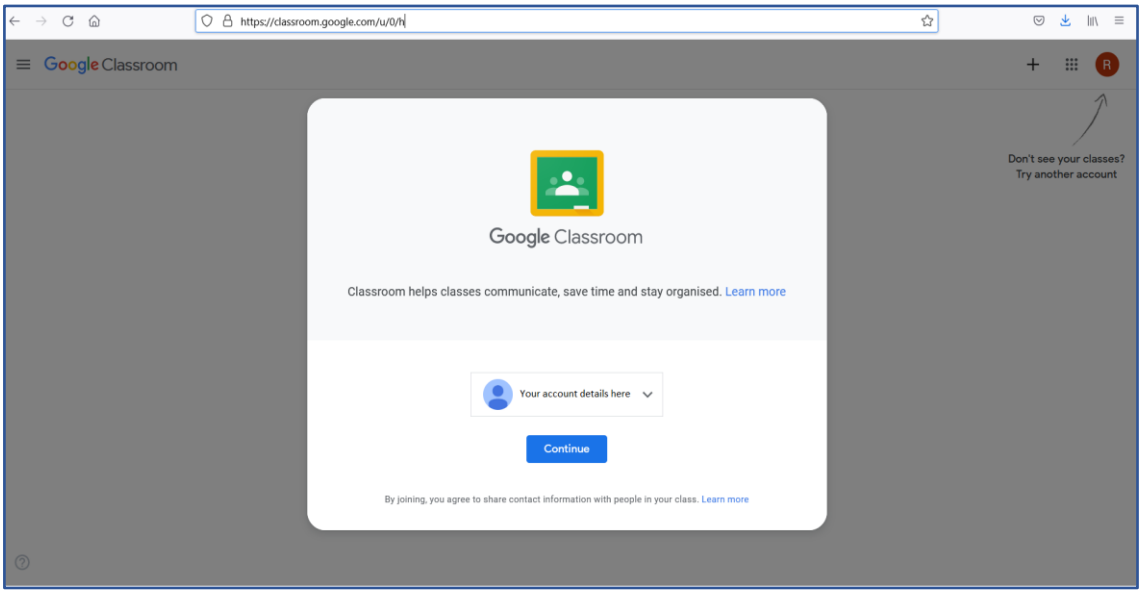



Figure 45: Logging on to Google Classrooms

3. There are also other wats that you can join a class:
    - **A class link**. Your teacher has sent you a link in an email.
    - **A class code.** Your teacher sends or tells you the class code.
    - **An email invite.** Your teacher sends you the invite.
4. After you join a class on one device, you're enrolled in that class for all devices.

### 11.4.3 How to complete a quiz assignment

1. Log on to classroom.google.com.
2. Click **Classwork**.
3. Click **View assignment**.
4. Click the form and answer the questions.
5. Click **Submit**.
    a. If the assignment is only the form, the assignment status changes to **Turned in (ie. completed)**.
    b. If there is more to the assignment, click **Open assignment** to get access to the rest of the assignment.

Try exploring Classrooms, Forms and other Google and other online learning resources. One of the nest ways to become familiar and confident online is to explore. But remember, explore safely.

# 12. Introduction to internet and the world wide web

# 12. Introduction to internet and the World Wide Web

The internet is a global network which allows for communication and resource sharing across the world.

World Wide Web, also known as the web, is a system which contains resources that are accessed through the internet. The world wide web uses website sites to create virtual spaces on the internet where videos, files, images, and other digital resources are stored so that you can view, store and retrieve them.

Wi-Fi is a wireless technology that enables electronic devices with wireless adapters such as laptops, mobile phones, TVs, and tablets to connect to the internet.

## 12.1 Expected learning outcomes from this topic

At the end of this topic, you will understand these words and be able to answer following questions:

- What is the internet, what is Wi-Fi?
- Why are these important?
    - How to connect to the internet.
    - Mobile hotspots.
    - Wi-Fi.
    - Hardwire connections.
    - Using a web browser.

## 12.2 Importance of connecting to the Internet

Access to the internet is a powerful enabler. With internet connections to the rest of the world you can communicate with friends and family, look for a job, learn new skills, or get your business online and help it succeed.

The internet allows you access to information on almost any subject matter, as well as an improved ability to communicate and collaborate with other people all over the world. These people may be customers, students or teachers, friends and family, or even representatives of a company or government department.

## 12.3 Using cables to connect to the internet

The oldest, and still a very common way to connect to the internet, is with physical wires. This is sometimes called a hardwire connection.

It is normally the simplest way to connect as a cable is plugged into your device and another device that provides internet to your house, school or office, known as a router, or hub.

The cables and connections look like this:

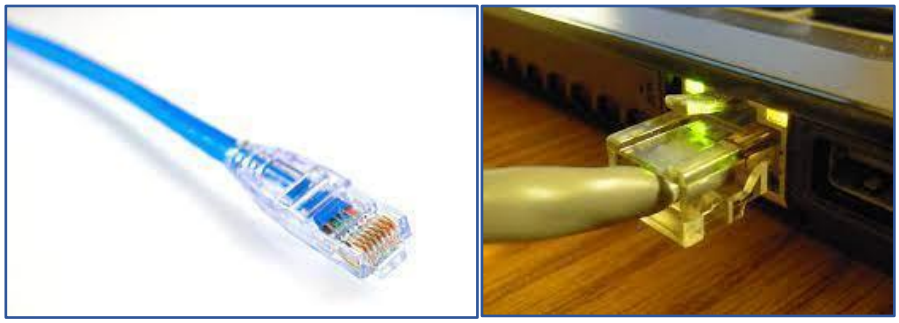


Figure 46: Cables and connections

These devices need to have an ethernet port where the cable is connected to and a source of internet (wall sockets in cyber cafes, offices, homes etc.)

There are many ways to connect to the internet such as via Mobile hot spots, wi-fi and mobile dial up.

## 12.4 Connecting to the internet through Wi-Fi

Wi-Fi or wireless internet allows you to access the internet without using up any of the mobile data in your calling plan.

If you have broadband access at home, school or at work then you can also connect your smartphone to this internet signal.

To connect your smartphone to Wi-Fi:

1. **Tap** on the **Settings** Icon.
2. **Tap** on the **Wireless and Networks** option.
3. **Tap** on the **Wi-Fi icon.**

Figure 47: The Wi-Fi symbol

4. Select the Wi-Fi network you want and enter the **password.**
    a. If the word **connected** appears under the network name then you are connected to the Wi-Fi.
    b. Wi-Fi in public spaces such as libraries, cafes and hotels may need a password. Some may not. Most are free to use, or free for customers to use.

## 12.5 Activity: Connecting to the Internet

Try the following activities.

- Connect to a Wi-Fi hotspot (a publicly accessible place where you can connect to the internet)

- Turn on the Wi-Fi on your laptop/phone/tablet.
- Scan/refresh for any available wireless networks (the list of available wireless networks is displayed automatically when you turn on the Wi-Fi).
- Click on the wireless network you want to connect to.
- Enter the correct password and click on connect. if the Wi-Fi password is correct, your device should be connected within a minute.

After you have completed the activity reflect and record your work.

For a blank activity and reflection template please see the accompanying annex. Annex_Activity and reflection template.docx.

# 13. Using a web browser

# 13. Using a web browser

A web browser is a type of application software that allows you to access resources and websites on the world wide web.
There are many examples of web browsers. The most common ones in use are Google Chrome, Mozilla Firefox, Apple Safari and Microsoft Edge.


Figure 48: Some popular web browsers

All these browsers work in very similar ways and have similar controls. If you can use one type of web browser then you will be able to apply those skills to other browsers.

## 13.1 Web addresses, or Uniform Resource Locators (URLs)

Users find, or locate, web pages online using a web address celled a Uniform Resource Locator (URL).

A couple of widely known URLs are:

- https://facebook.com/ for Facebook and
- https://www.youtube.com/ for YouTube.

To access either of the above URLs do the following:

- Ensure you are connected to the internet (either cable, mobile data, or Wi-Fi).
- Open a web browser such as Google Chrome web browser from your phone/computer.
- Type the URL on the address bar on the web browser as shown below.

## 13.2 Understanding a URL – the address of a website

There are three basic parts of a URL you should understand. These the protocol, the domain name and the path.

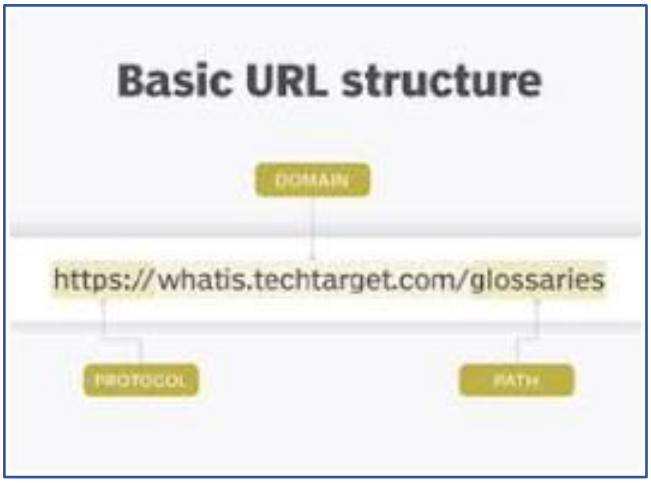



Figure 49: The different parts of a web address

The protocol tells the browser how to communicate with a website's server, to send and retrieve information. It is what enables a URL to work in the first place.

https or Hypertext Transfer Protocol Secure (HTTPS) is the most important part of the URL.
The Domain name is the identifier for a specific website which brings one straight to the home page. It is a domain name that is made up of two smaller parts - the **name of the website** in question and the **top-level domain**.

Let's take www.google.com as an example:

- The name of the website is google.
- The top-level domain is .com.

The path is an extra part of the address that points to a specific resource or page on a website.

If we take https://mail.google.com/gmail as an example, the:

- The protocol is https, a secure protocol.
- The domain is google.
- The path is /Gmail.

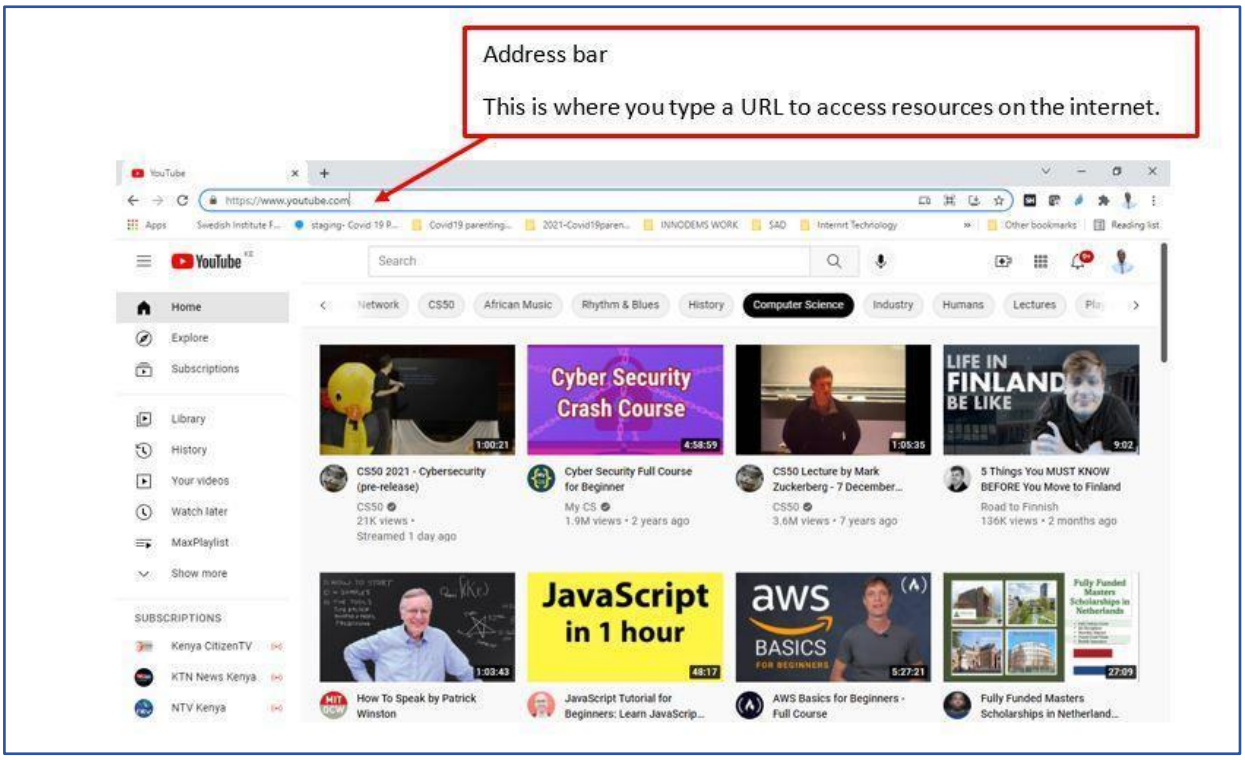



Figure 50: An address bar in a typical web browser

## 13.3 Navigation buttons in Google Chrome

Google Chrome web browser has the following important navigation buttons:

a. Back Button - This button navigates backwards through recently opened pages.
b. Forward Button - This button navigates forwards through recently accessed pages.
c. Refresh Button - This button reloads a page. Useful e.g., when the page doesn't load correctly, it helps to reload a page correctly.

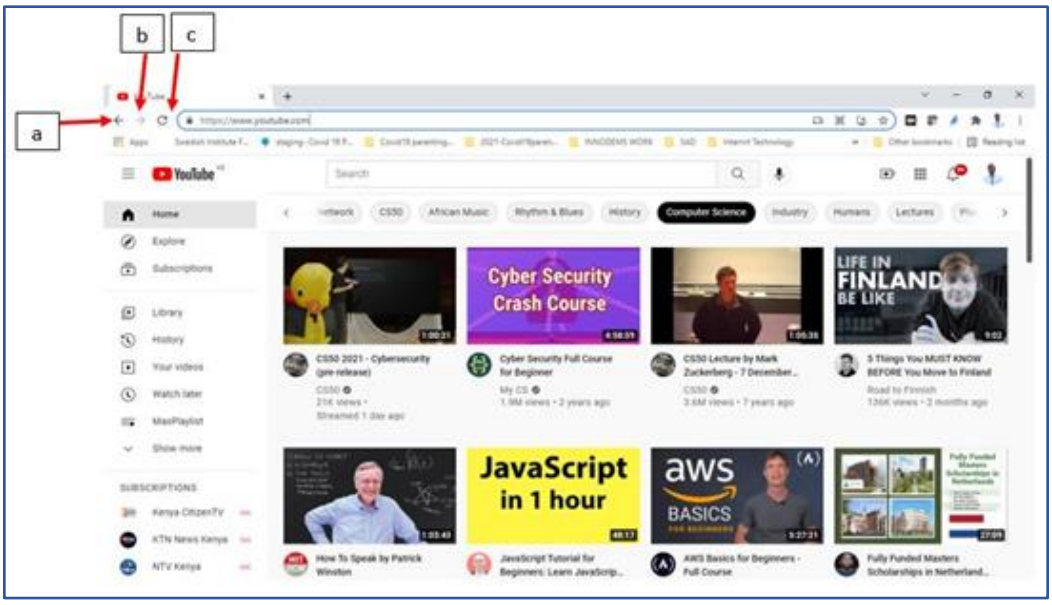



Figure 51: Google Chrome, a typical web browser and basic navigation buttons

## 13.4 Bookmarks and history

You can save your favourite pages in a web browser so that you can view/go back to them later. This is similar to inserting a bookmark in a book so that you can easily pick up from where you stopped reading. This is called bookmarking.

To create a bookmark, start by clicking on the star at the extreme right-hand side of the address bar.

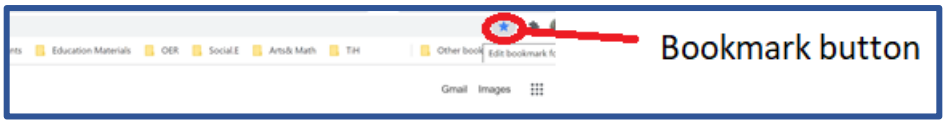



Figure 52: The bookmark icon on the address bar of a typical web browser

- Select the Add Bookmark option from the dropdown list.
- Give your bookmark a name.
- From the folder option select Bookmarks Bar as shown below.
- Click on done.
- Your bookmark is now added and is available just below the address bar. You open the bookmark by clicking on it.

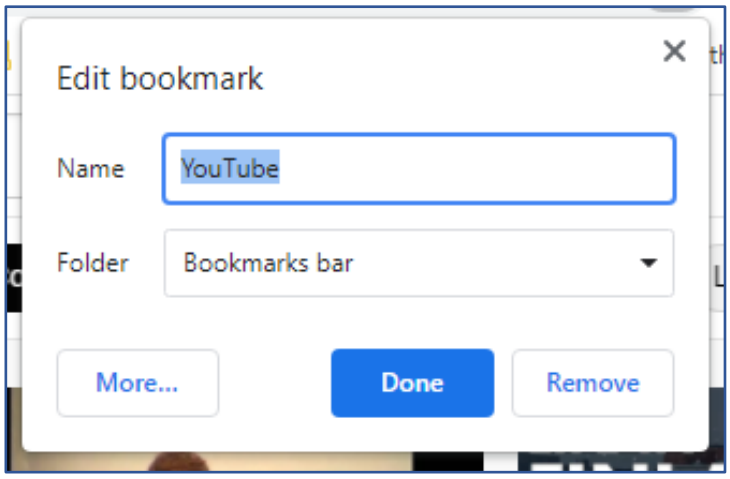



Figure 53: Editing the name on a bookmark

While using a web browser, every page you visit is stored by the browser in history. This allows you to return to a recently viewed page, in a similar way as bookmarks.

To look at your history on your browser:

- If the back and forward buttons are active, click and hold your mouse on any of them and select See full history, or
- Click on the three dots on the top right of the browser and select history.

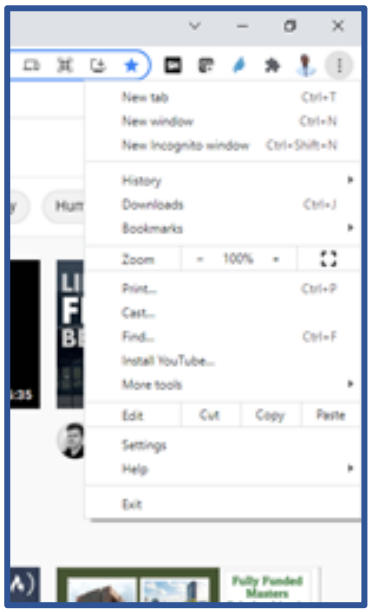



Figure 54: Accessing your browsing history

# 14. Downloading/saving files

# 14. Downloading/saving files

Downloading a file means saving a copy of a resource found online to your mobile phone or computer. These could be documents, pictures, videos, apps or programs. Web browsers are able to handle most downloading activities. If you have a difficult or large resource to download you may need additional software called a Download Manager.

## 14.1 To download an image

- Right click the image and select **Save Image As**.
- Click **OK.**

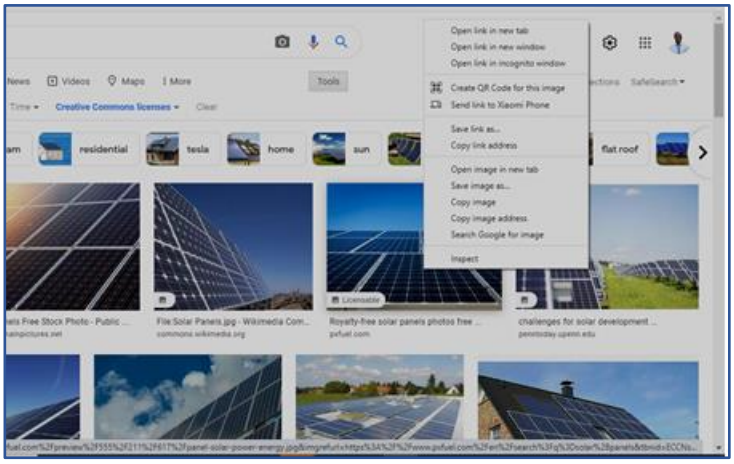



Figure 55: Right clicking an image to download the image

## 14.2 Steps to downloading a document

1. **Open** to view the document.
2. If it's a PDF file, in the top right corner of the window, find the **down arrow** and **click** on it.
3. The document will download to your computer.
4. Note: On mobile phones, once you click a link with a pdf document, the files are downloaded to your device automatically.

# 15. Safe browsing on the internet

# 15. Safe browsing on the Internet

Getting online safely can give you access to information, social connections and economic opportunity. If you practice unsafe online practices or have unsecured digital devices you may open yourself up to danger on the internet. While innocently surfing the Web, you may not realize that you could be picking up spyware, downloading malware, or even visiting fraudulent sites. You do not have to be afraid of every click made on the internet, but there are some simple precautions you should take to stay safe while you're browsing.

## 15.1 Keep your browser updated

New forms of online content that can access and damage your computer are constantly being introduced. You can help to keep your computer safe by updating your browser. This is done by:

- Using the latest version of your browser.
- Installing all recent updates.

## 15.2 Domain and URL checking

Malicious sites often use deceptive domains to trick users into believing they are on a legitimate site. A malicious website is any website that's been designed to cause harm. The following are some traits common to many malicious websites.

- The website asks you to download software, save a file, or run a program
- The website tells you that your device is infected with malware or that your browser extensions or software are out-of-date.
- The website claims you have won a prize and requests your personal information to claim it.
- Visiting the website automatically launches a download window.
- You are asked to download an invoice or receipt, such as a PDF file, .zip or .rar, or an executable file or .scr screensaver file

## 15.3 Be cautious of free software

Common types of free software include desktop backgrounds, free images, emoticons, computer games, etc. The consequences of installing unverified and untrustworthy programs can range from a minor annoyance to a loss of funds. . Such software can be a drain on your computer system and resources. Take proper precautions when searching for new software and avoid the free offers.

## 15.4 Be cautious of peer-to-peer file sharing

Peer-to-peer file sharing is a little different from the normal way of downloading a file from and internet source. In peer-to-peer sharing, a special program is used instead of your web browser. This special program looks for computers on the internet that have the file you want. These computers are ordinary computers like yours. They are called peers.

Peer to peer file-sharing programs like BitTorrent and LimeWire have been known to contain malware, adware, and illegal downloads. Be cautious when downloading and sharing from peer-to-peer sites.

If you have no alternative to using such sites, you should take the following precautions:

- Use pop-up blockers.
- Clear the cache in your computer on a regular basis.
- Turn on “I do not want to be tracked” button when browsing the internet.

## 15.5 Verifying secure sites

One of the easiest ways malware, spyware, and adware can access your computer is through downloads therefore only download from well-established sites you trust. Here are some simple steps to help protect you from an unsafe website:

- Never click on a link embedded in an email. Even if sent from someone you trust, always type the link into your browser
- Use your common sense. Does a website look strange to you? Is it asking for sensitive personal information? If it looks unsafe, don't take the risk.
- Does the website list contact information or some signs of a real-world presence? If you don't know then contact them by phone or email to establish if they are real.
- Read the URL carefully. If this is a website you visit often, is the URL spelled correctly? Online criminals often set up websites almost identical to the spelling of the site you are trying to visit. An accidental mistype may lead you to a fraudulent version of the site.
- Is the website offering you a product or service at an unheard-of price? Or maybe they are promising you a huge return on investment? If the offer looks too good to be true, trust your instincts. Do some research to find reviews or warnings from other users.
- Check the properties of any links. Right clicking a hyperlink and selecting "Properties" will reveal the true destination of the link. Does it look different from what it claimed to lead you to?

### 15.5.1 Secure Websites

SSL stands for Secure Sockets Layer. SSL keeps internet connections secure and prevents criminals from reading or modifying information transferred between two computer systems. A padlock icon next to the URL in the address bar means SSL protects the website you are visiting.

TLS (Transport Layer Security) is an updated, more secure, version of SSL. It works in much the same way as the SSL, using encryption to protect the transfer of data and information.

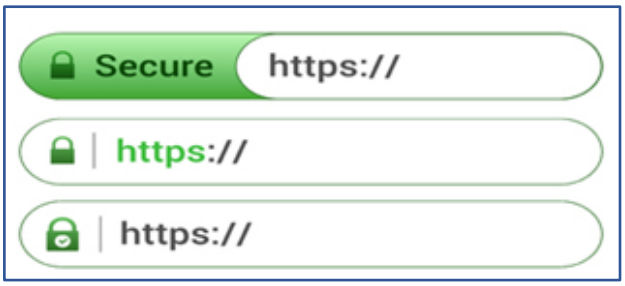



Figure 56: The padlock symbol means the website is more secure

### 15.5.2 Activity: Use the internet to search for information and documents

- Think about something that is important to you now or is of interest. This could be the physical address of a local government office, the selling price of a local food product you are interested in buying, or the score from a football match.
- Select a search engine of your choice on the device of your choice.
- Search for the document, or specific information. Your search will provide many results. Some of these results are useful and some are less useful. You will need to think which documents or information are the ones you want.

After you have completed the activity reflect and record your work.

For a blank activity and reflection template please see the accompanying annex.
Annex_Activity and reflection template.docx

# 16. Staying safe online: Cyber security and you

# 16. Staying safe online: Cyber security and you

This topic on cyber security gives information on how to ensure confidentiality, data integrity, and how to stay safe online and offline with your digital device.

## 16.1 Expected outcomes from the cyber security module

On completion of this topic, you will be able to:

- Make your personal information and communication safety a priority
- Identify and resolve simple security issues
- Test the security of online sites requiring personal information before use

## 16.2 What is cyber security?

Cyber security is the application of technologies, processes, and controls to protect computer systems, networks, programs, devices and data from attacks. Digital attacks are called cyber-attacks.

Cyber security aims to reduce the risk and severity of cyber-attacks, and to protect against the unauthorised exploitation of systems, devices, networks and technologies. It also refers to the practice of securing electronic devices and personal information from unauthorised access or attack.

Cyber security includes internet governance, cybercrime, data protection, jurisdiction, trademarks, and copyright and intellectual property.

## 16.3 Key Terms used in Cyber Security

Here are some definitions of terms you will come across in this manual and also in conversations or textbooks concerning cyber security.

**Network security** is the practice of securing a computer network from intruders, whether it is by targeted attackers or opportunistic malware or virus.
**Application security** focuses on keeping software and devices free of threats. A compromised application could provide access to the data that it is designed to protect. Successful security begins in the design stage, well before a program or device is deployed.

**Information security** protects the integrity and privacy of data, both in storage and in transit.

**Operational security** includes the processes and decisions for handling and protecting data assets such as the permissions users have when accessing a network and the procedures that determine how and where data may be stored.

**Disaster recovery and business continuity** define how an organisation responds to a cyber-security incident or any other event that causes the loss of operations or data. The organisation uses disaster recovery policies to dictate how it restores its operations and information to return to the same operating capacity as before the event.

**End-user education** addresses precautions people should take to avoid accidentally introducing a virus to a secure system by following good security practices. They teach users to delete suspicious email attachments, not plug in unidentified USB drives, and various other important lessons vital for the security of any organisation.

## 16.4 Types of Personal Data Targeted in Cyber Attacks

Personal data is any information which is related to an identified or identifiable natural person. A person is identifiable if they can be directly or indirectly identified – for example, by reference to an identifier such as a name, an identification number, location data, an online identifier or one of several unique characteristics (physical, physiological, genetic, mental, commercial, cultural or social).

Examples include your identification card number, passport number or social security number. Other examples of personal data include the telephone number, credit card or personnel number at workplace, accounts data, car number plate, personal appearance, customer number or address.

### 16.4.1 Consequences of not Securing Personal Data

Most internet users are not aware of threats to online privacy and the risks associated with having their personal data online. Here are some of the consequences of online threats to personal data:

#### 16.4.1.1 Financial Loss

The financial impact from a data breach is undoubtedly one of the most immediate and hard-hitting consequences that organizations or individuals have to deal with in cybercrime.

#### 16.4.1.2 Reputational Damage

News travels fast and organizations and individuals can find themselves at the centre of a global news story within a matter of hours after a breach or disclosure. This negative press coupled with a loss in trust can cause irreparable damage to the breached entity or individual in question.

#### 16.4.1.3 Operational downtime

Business or personal operations will often be heavily disrupted in the aftermath of a data breach. Organisations or individuals will need to contain the breach and conduct a thorough investigation into how it occurred and what systems were accessed. The entity may need to be completely shut down until investigators get all the answers they need and this is a process that can take days, even weeks, depending on the severity of the breach.

#### 16.4.1.4 Legal action

Under data protection regulations, organizations or individuals are legally bound to demonstrate that they have taken all the necessary steps to protect personal data. If this data is compromised, affected individuals can seek legal action to claim compensation from the responsible party.

#### 16.4.1.5 Loss of sensitive data

Biometric data is extremely valuable to cybercriminals – much more than basic credit card information and email addresses. This is because the criminals can use this data to cause serious damages to the individual. Breaches that expose this data can be disastrous and exceed any financial and reputational damage.

### 16.4.2 Threats to your personal data

#### 16.4.2.1 Malware

Malware is malicious software such as spyware or virus. It is activated when a user clicks on a malicious link or attachment, which leads to installing dangerous software. Once a malware is activated, it can:

- Block access to key network components (Ransomware)
- Install additional harmful software
- Covertly obtain information by transmitting data from the hard drive (Spyware)
- Disrupt individual parts, making the system inoperable (Bricking)

You can prevent a Malware attack by talking the following steps:

- Install Anti-Virus/Malware software.
- Keep Your Anti-Virus Software Up to Date.
- Run Regularly Scheduled Scans with Your Anti-Virus Software.
- Keep Your Operating System Current.
- Secure Your Network.
- Avoid opening suspicious links or download attachments from unknown sources.
- Keep Your Personal Information Safe by locking down all your privacy settings through secure passwords.
- Install Firewall which prevents malicious attacks by blocking all unauthorised access to or from a private computer network.
- Back up your data regularly and periodically test the back up to make sure you can access your archived information.

#### 16.4.2.2 Phishing Attacks

This refers to gaining your personal information by tricking you. Phishing attacks are used to get information like credit card numbers or bank login details by pretending to be a respectable website. To prevent phishing take these simple precautions:

- Confirm the security of a website before inputting personal information.
- Avoid following links from emails and other messages instead, visit the target website by typing the address yourself into your browser.
- Do not give out personal information online unless you are sure you can verify the recipient's identity and they are trustworthy.

### 16.4.3 Spotting a Fake Email or URL

Companies and individuals are often targeted by cybercriminals through emails designed to look like they came from a legitimate bank, government agency, or other organization. In these emails, the sender asks recipients to click on a link that takes them to a page where they will confirm personal data, account information, etc.

Sometimes phishing emails are coded entirely as a hyperlink. Clicking accidentally or deliberately anywhere in the email will open a fake web page or download spam onto your computer. Avoid links attached to emails and especially from unknown persons.

The following can help you detect if an email is real or fake:

- The Sender's Email Address Has a Generic Public Domain especially for a government or business enterprise for example:
    - bankofbaroda@gmail.com.
    - bankofbaroda@hotmail.com.
    - bank_of_baroda@yahoo.com.
- The domain name is completely wrong or slightly misspelled for example amarzon.com instead of amazon.com.
- The tone of the email is urgent and requires you to act swiftly for example.
- The email promising financial windfall or grave penalties.
- Emails that force you to access a website.

# 17. Online abuse and cyberbullying

# 17. Online abuse and cyberbullying

Cyber bullying is bullying with the use of digital technologies. It can take place on social media, messaging platforms, gaming platforms and mobile phones. It is a repeated behaviour, aimed at scaring, angering, or shaming those who are targeted.

Examples includes of cyber bullying are:

- Spreading lies about or posting embarrassing photos of someone on social media.
- Sending hurtful messages or threats via messaging platforms.
- Impersonating someone and sending hurtful messages to others on their behalf.

## 17.1 Signs of Cyberbullying

No matter how much pain they have suffered, victims of cyberbullying are often reluctant to tell parents, teachers, or other persons in authority about bullying because they feel a sense of shame from being victimised. They may also fear losing their cell phone or computer privileges. Bullies tend to be good at hiding their behaviour from those in authority. It's important to recognise the warning signs of cyberbullying and assist the victim to take appropriate action.

## 17.2 Effects of Cyberbullying

When bullying happens online, the victim can feel they are being attacked everywhere, even inside their home. They can feel they have no escape. The effects are long lasting and affect a person in many ways:

- Mentally — feeling upset, embarrassed, stupid, even angry.
- Emotionally — feeling ashamed or losing interest in the things you love.
- Physically — tired (loss of sleep) or experiencing symptoms like stomach aches and headaches.

The feeling of being laughed at or harassed by others can prevent people from speaking up or trying to deal with the problem. In extreme cases, cyber bullying can even lead to people taking their own lives. Documented effects of cyber bullying include:

- Higher rates of depression and anxiety.
- Reduced feelings of self-worth.
- Difficulties sleeping and increased bed-wetting events.
- Higher number of physical issues such as headaches and stomach aches.
- Increased suicide attempts (research suggests that cyber bully victims are two to nine times more likely to experience suicidal thoughts.
- Increased instances of eating disorders especially among girls.
- Truancy for young people.
- Low levels of attainment at school.
- Increased instances of drug and substance abuse.

## 17.3 Strategies for dealing with cyber bullying

### 17.3.1 Do not respond immediately

The aim of a lot of cyberbullying in most cases is to annoy, upset or confuse the person who is being targeted, so that they react emotionally. If you are being cyber bullied, keep in mind that the person who is targeting you wants you to respond. Do not give them the satisfaction of knowing you are annoyed.

### 17.3.2 Follow up when you are more calm

It is important to have a good understanding of the situation before contacting the cyber bully. Using calm, neutral language, try to resolve the situation with the person without letting them get to you emotionally. They may not even realise that you interpreted their actions as cyber bullying, so a calm conversation is important.

### 17.3.3 Take screenshots of the message

Screenshots are the best way to report an instance of cyber bullying. This is important because the person bullying (the cyber bully) may delete their comment or photo when they realise that it might get them in trouble. Screenshots will ensure you always have a copy of what was directed at you online.

### 17.3.4 Stop frequently checking posts

You can always reduce the time you spend on social media.  so that the bullying doesn't feel constant. Taking a break from the online world is good way to look after yourself.

### 17.3.5 Report and block

Most social media sites want to help you feel safe online, so they have a lot of built-in tools to keep you safe and to enable you to report bullying. If you have tried using the reporting and blocking options within your social media platform and the situation is still difficult, you can make a report to the relevant authority in your country.

The authority in your country could be an official commissioner (such as an Information Commissioner), a department of the government (such as a Department for Trade and Commerce), or an office or directorate within a department. The accompanying annex for your country will have further details relevant to you.

## 17.4 Specific dangers for women and girls

Over several years there has been increasing cases of young women being befriended online and lured to remote areas where their personal safety is threatened. This has happened all over the world and is a risk that all people should be aware of and prepared for.

### 17.4.1 Typical ways this can happen

Young women are contacted online by a person under a pretence. This can be on one of more of these ways:

- Posing as an old friend
- Posing as a member of a community of interest such as a fan of a musician or band, or a sports team
- Posing as a potential employer

After a period communicating with the young woman the person will ask for a meeting, a job interview, help with a chore such as a delivery, a date or even financial help and money that needs to be delivered.

Any of these requests should be looked at carefully.

### 17.4.2 Some suggestions to help you stay safe

The most important thing to do is verify the existence of the person you are talking to.

- Is this a real person?
- Are they who they say they are? For instance, is the 16-year-old girl real or is the person a 30-year-old man pretending to be a 16-year-old girl?
- If the contact is from a company, is the company real, and does that person work at the company?
- Always think carefully before sharing personal details about yourself online.

If you are going to a meet a person in real life that you have only ever communicated with online, then please do at least the following:

1. Verify the person is who they say they are.
2. Check their contact details.
3. Pass their contact details to someone you trust so they can check on you.
4. Also tell this trusted person where you are going, when you are going and when you expect to be home, who you are going to meet with and why.

5. Meet in a well-lit public place where there are passers-by that could help you if need.
6. When you get home, don’t forget to inform your trusted person you are safe.

# 18. Understand the difference between real news and fake news


# 18. Understanding the difference between real news and fake news

A growing number of people use the internet to stay informed and share millions of posts, articles, and videos across platforms such as Facebook, Twitter, and YouTube. The rapid adoption of social media has led to a rise in information-sharing among users, with fake news becoming a common feature of our access to information online. . The spread of misinformation is in part attributed to a failure by social media organisations to verify the authenticity of news items that appear on their platforms.

## 18.1 What is real news?

Real news can be defined as legitimate news written by a professional journalist who adheres to ethical guidelines (such as, integrity, accuracy and honesty) in gathering and writing news articles, Real news articles report facts in a clear non-biased manner and can be verified.

## 18.2 What is fake news?

Fake news refers to false reports or misinformation shared in the form of articles, images, or videos which are disguised as “real news” and aim to manipulate people’s opinions.

Fake news is spread by social media users in order to encourage other readers to discuss, repost, and retweet these fake news stories. Fake news is mostly used to manipulate public opinion for political or commercial gain. Fake news is easily spread – on purpose and accidentally - through social media platforms such as Twitter, Weibo, WhatsApp, WeChat, Instagram, and Facebook.

Some real news stories, however, are labelled as fake news by influential figures in society who might disagree on factual accuracy of articles. Examples might be

when a politician is exposed for corruption and suggests that news stories from media are fake in order to protect themselves.

## 18.3 Types of fake news

There are different types of fake news, depending on motives of those who create it. For example:

1. **Clickbait** is used to get the attention of users and attract them to click through to linked websites and generate advertising income. Authors deliberately fabricate and exaggerate stories through distorted images and headlines. A typical headline might be “You won’t believe what the president did”, which creates a sense of curiosity in a reader who then clicks on the headline.
2. **Propaganda** refers to false communication in articles, written to mislead audiences. It is often presented to promote a political agenda or biased perspective.
3. **Targeted misinformation** is a fictitious piece of information shared for self-serving interests. Targeted misinformation is often directed at groups that are most susceptible to receiving this type of information and easily accept and share polarizing content without verifying its authenticity.
4. **Misleading headlines** can be used with real news stories. Sometimes a story may be true and factual, but news outlets may use a misleading or exaggerated headline to entice readers to click through.
5. **Imposter content** is when genuine news sources are imitated with false narratives. People affected by the truth can make up stories to deceive or mislead audiences from believing what was originally true. They can use other news outlets in order to label the news they disagree with as false.

## 18.4 Some of the ways to identify fake news

As we have seen there are many types of fake news, and there are many ways to identify fake news. Here is some useful guidance for you:

1. Think clearly about the information you read. This means being aware of your emotional reactions and questioning the purpose of the story. This is a useful

approach because fake news is created to get an emotional response e.g., anger or fear from the reader.

2. Identify the message. Is the article fair and balanced? Is the writing reasonable in the way it addresses an issue? Can you tell the difference between facts, opinion, assumptions, and misreporting?
3. Examine the evidence used in the article: A credible story uses factual evidence such as statistics, expert quotes, and eye-witness account from the people on the scene. You should also look at the images. It is easy to make fake images or alter existing images.
4. Check the source:  Consider the source of a news article. News that comes from an unfamiliar or unknown source may be fake news. You can also check on the author or publisher of the news article and their reputation.
5. Check if other news outlets have published similar articles. If you can find no other report, then it likely the news article is false.
6. Use fact checking tools to verify the content and source of the news. Local examples of these tools will be found in the accompanying country annexes.

# 19. First steps to getting your business online

# 19. First steps to getting your business online

You have taken your first steps to get online as an individual. This may be for entertainment, to be informed or to stay in contact with friends and family.

You can use the skills you have just learned to get your business online safely as well.

You can communicate faster and more cheaply with your existing customers and suppliers, find new customers and suppliers, and tell the wider world about your products and services. You may be able to have lower operating costs which can help protect or increase your profit margin. Your products and services will be visible 24 hours a day, seven days a week.

## 19.1 Taking your business online

Here are a few simple steps to consider when you are thinking about taking your business online:

1. Does your site need to be a website to help with your marketing or should it be an ecommerce site that can sell products and services?
    a. Service businesses use a website for marketing, that is telling a story about you and/or your business.
    b. Product based business might find an ecommerce website more useful. This is because you can have pictures, descriptions and prices of your products and you want to be able to sell the product through your website, and e-commerce sites automate your sales process.
2. Online and offline systems. Think about the processes in real life that will have to link up with your website. These might be arranging for sales calls or picking products and sending them to customers.

3. Payment processes and options. Consider payment methods that are available in your country and ensure that they are user friendly.
4. Think about getting your business online in small steps. Don't try and do everything in one go. This can be complicated, take a long time and could be expensive.

## 19.2 Online and social marketing

The most important part of any business is the customer. Without people that want to buy your product or service your business activities will not survive.

We know from this manual that the internet and the web can help us communicate in different ways with potential customers through websites, email, and social media. We can use these online tools to help our marketing.

Marketing is the practice of spreading messages about a brand, products or services, or a company to potential customers. Digital, or online, marketing is the part of marketing that uses the internet and digital technologies, digital media, and platforms to promote products and services.

A good place to start is:

1. Have something clear you want to say. This could be a new product, or news of a sale
2. Understand who your customers are. This can be based on your existing customers, or new customers that you'd like to have in the future. This includes understanding what they want, and where they get information from online.
3. Using the websites, and social media platforms that your customers use. This means using Facebook, Twitter, or Instagram to get your message out. You can also use email to communicate with people you already know such as existing customers or people that used to be customers.
4. An important part of online and social marketing is thinking, listening, and responding to your customers. Marketing is not a one-way process. It is a form of communication, and this means speaking with customers and listening to customers.

## 19.3 Simple steps to setting up a website

1. Create a site. This will require hiring a person or paying for web creation services. Ensure the graphics design and artwork of the site are like that of your current business and all the information displayed on the website accurately reflects your current business.
2. Ensure you can support customers via email and contact forms on your website (known as customer relations or customer services).
3. Establish a way to communicate with your customers beyond your website by providing telephone and mobile phone numbers.
4. Check ease of accessibility/ usage. Make sure things like forms, chatbots, and enquiries email addresses are compatible with different types of digital device.
5. Finally, go through your site from the point of view of your customer. Try using the website the way a customer would (the customer journey). Be objective with feedback and use it to make your website as easy as possible to use.

## 19.4 Simple steps to setting up an e-commerce site

1. Product catalogue. Use existing photos of your products or have new photos taken. If you have a physical catalogue, you can use its descriptions, prices, and quantities for your online version.
2. Create the ecommerce site. Hire a web application developer who has the right skills and experience to create a fully functioning e-commerce site for your business.
3. Ensure your ecommerce site is a user-friendly site and can make a difference for your customers online.
4. Think about how you will get your products to your customers, and how they may be able to return products to you.
5. Have a return and refund policy that safeguards your business interest and that of the customer.
6. Establish payment systems that are compatible with your site and is customer friendly.

7. Provide a customer service channel for queries and complaints.
8. Set up a review option or button to get feedback from your customers.

## 19.5 Potential threats to online businesses and the information of their customers

If you want to take the opportunity to take your business online then you will have to think about your own information, and the personal and financial information of your customers. Here is a summary of some of the threats you may encounter.

### 19.5.1 Elements of Data Security for Online Business Owners

There are some fundamental aspects of data security that an online business must consider. As a starting point consider these guiding principles of confidentiality, integrity, and availability.

- Confidentiality - Ensures that data is accessed only by authorised users with the proper credentials.
- Integrity - Ensure that all data stored is reliable, accurate, and not subject to unwarranted changes.
- Availability - Ensures that data is readily and safely accessible and available for ongoing business needs.

### 19.5.2 SQL Injection attacks

A Structured Query Language (SQL) injection is a type of cyber-attack that results from inserting malicious code into a server that uses SQL. When infected, the server releases information. Submitting the malicious code can be as simple as entering it into a vulnerable website search box.

A business can prevent SQL injection by:

- Validating user inputs.

- Sanitize data by limiting special characters.
- Enforce prepared statements with parameterised queries.
- Using stored procedures in the database.
- Actively manage patches and updates.

### 19.5.3 Denial of Service (DoS)

This is a type of cyber-attack that floods a computer or network so that it cannot respond to requests. Cyber attackers often use a flood attack to disrupt services and use the time that a network is disabled to launch other attacks.

You can avoid a DoS by strengthening your business security:

- Fortifying all internet-facing devices to prevent compromise.
- Installing and maintaining antivirus software.
- Establishing firewalls configured to protect against DoS attacks.
- Following robust security practices to monitor and manage unwanted traffic.

### 19.5.4 Activity: Lesson review and first steps

- Do you understand why you need to take your business online?
- Are there examples of business like yours you can study or emulate?
- Set up an online store through free online sites.

After you have completed the activity reflect and record your work.
For a blank activity and reflection template please see the accompanying annex.
Annex_Activity and reflection template.docx

# 20. Other basic skiils

# 20. Other basic skills

This section seeks to equip learners with knowledge on the practical application of digital skills. .

Digital devices are becoming everyday tools. We may not even think about the presence of digital devices in our everyday life, but they can include a digital map kiosk in an airport, a ticket machine at a train station, an automated teller machine (and ATM, bank machine, or “hole in the wall”) or other digital services.

## 20.1 Accessing services online

Many governments are beginning to use the internet, websites and smartphone apps to communicate with their citizens and to deliver services directly to people.

Different countries and online systems provide different services, but typical services include:

- Getting official guidance on useful topics such as Covid compliance, Vaccine Passports etc.
- Registering your address with a local government department for administrative purposes such as eligibility to vote.
- Registering your children do they can access education.
- Registering a new business.
- Registering and paying taxes.
- Registering so you can access healthcare services.

Typical examples of online government service portals include:

- UK government services and information, https://www.gov.uk/
- Estonia e-government portal, https://e-estonia.com/

Refer to the accompanying country annex for your country for examples of services, portals, and exercises on accessing public, health, tax, and education services from your local and national government.

## 20.2 Automated Teller Machines (ATM)

An ATM is a machine that allows bank customers to carry out banking services without the aid of a human being.

Using an ATM allows you to withdraw money from your bank account, check bank account balances, print a report from your bank account, deposit money and even carry out payment transactions.

To use an ATM, you will need a debit or credit card from your bank and a PIN (Personal Identification Number).

### 20.2.1 How to use an ATM machine

1. It is best practice to visit the appropriate ATM machine for your bank. For example, if a card belongs to Equity Bank look for an ATM for Equity Bank if possible. Some ATMs will charge you more for using a card from a different bank.
2. Basic safety at an ATM machine. ATM users are targeted by thieves and robbers. Make sure the ATM area is well lit. Be alert and attentive of the ATM surroundings and check the ATM machine for any unusual and suspicious objects.
3. Insert the ATM card into the ATM card slot with the chip side facing away from you and down.
4. Choose the language you want to use with the ATM.
5. Enter your secret PIN (Personal Identification Number). Make sure the numbers cannot be seen by anyone near you.
6. Most ATMs will let you:
    a. Withdraw money.
    b. Deposit money.
    c. Check your bank account balance.
    d. Transfer money or make payments.
7. End your session by following the instructions on the ATM machine to exit and get your ATM card back.

8. Take your money and the ATM card.

Important note: If your ATM card is lost, notify your bank immediately. They will help protect your money and issue a new ATM card to you.

### 20.2.2 Activity: Using your ATM card and high-street banking services

If you have a have an ATM card you will:

- Use it to withdraw money and deposit money.
- Have your bank mobile banking app installed in your device and be in a position to use it well.

After you have completed their activities reflect and record your work.

For a blank activity and reflection template please see the accompanying annex. Annex_Activity and reflection template.docx.