# DIGITAL SKILLS MASTERY

## A COMPREHENSIVE TRAINING MANUAL

### VOLUME 1

## About the Organization

Founded in 2019 and registered in Nigeria with the Corporate Affairs Commission (CAC) in 2020, The Creative Kids Zone Initiative (TCKZone) is a non-governmental set up to train young students in technology skills.

TCKZone reaches out to thousands of young individuals in African communities and makes them ambassadors for technology. Their mission is to expand creativity in as many kids as possible by training and empowering them with the technological skillset. With thematic focus areas on digital skills, life skills, entrepreneurship and youth-led innovation in education, the organization has impacted thousands of individuals across different communities

## About the Digital Skills Fellowship

TCKZone Digital Skills Fellowship is designed to provide accessible and affordable digital skills training to young children between the ages of 7-18 years through partnerships with local schools and community organizations. The project will equip young minds to become academically and socially outstanding, with traceable evidence in their performance at their class examinations, display of competitive digital skills and leadership abilities, through a robust training curriculum.

## Contact Details

Email: info@tckzone.com
Phone Number: 08126476445
Website: www.tckzone.com

# ABOUT THIS LEARNING GUIDE

We are delighted to present "Digital Skills Mastery: A Comprehensive Training Manual" as a valuable resource for both you and your students. In today's fast-paced and interconnected world, digital skills have become essential for success, not only in the workplace but also in everyday life.

This comprehensive manual is designed to support your efforts in teaching digital literacy and ensuring that your students are well-prepared to thrive in the digital age. It covers a wide range of topics, from the basics of computer navigation to advanced skills for the workplace and everyday life.

As you integrate this guide into your curriculum, we encourage you to:

- Tailor Content: Adapt the chapters and topics to align with your specific educational objectives and the needs of your students.

- Encourage Hands-On Learning: Promote active engagement with digital tools and resources. Encourage students to apply what they learn in practical exercises and real-life scenarios.

- Promote Lifelong Learning: Instill in your students the value of continuous learning. The digital world is dynamic, and adaptability is a key skill for success.

Thank you for your dedication to preparing students for a digital future.

E-copies of this manual and also video lessons are available on the website www.tckzone.com

# TABLE OF CONTENTS

# BASIC COMPUTER SKILLS

# INTRODUCTION TO DIGITAL SKILLS

Imagine a magical land where everything is made of tiny dots called "pixels." These pixels come together to create the pictures, videos, and games you see on your computers, tablets, and smartphones.

Digital skills are like special tools that help you explore and create in this magical land of pixels. Digital skills include knowing how to use computers and devices, understanding how the internet works, and being able to do amazing

Things like coding, creating digital art, and using apps and software to solve problems and have fun!

## Why Are Digital Skills Important?

You might wonder why you need these skills. Well, just like learning to ride a bike or swim, digital skills open up a world of opportunities:

### Learning
With digital skills, you can explore educational websites and apps to learn about fascinating subjects, from science and history to art and music.

### Creativity
You can be an artist, a storyteller, or a game designer in the digital world.

### Communication
You can talk to friends and family, even if they're far away, through video chats and messages.

### Problem-Solving
Digital skills help you become a problem-solving superhero! You can use technology to tackle puzzles.

### Fun and Games
Games aren't just fun; they can teach you new skills and strategies while you play.

## Getting Started! What to keep in mind

As you begin your adventure into the world of digital skills, it's important to keep a few key things in mind:

- Curiosity Is Your Superpower
- Stay Safe and Kind Online
- Learning Takes Time
- Keep an Open Mind
- Ask for Help
- Practice!!! Practice!!!

## Exercise

Worksheet #1: Digital Skills Word Search

# WHAT ARE COMPUTERS?

Think about a friend who can solve math problems super fast, remember everything you tell them, draw pictures, play music, and even tell you stories. That's **a computer!** But a computer is not a person; it's a special machine designed to do these amazing tasks.

## Types of Computers

There are many different types of computers:

### Desktop
These are the big, sturdy computers that sit on a desk. They're great for serious work and gaming.

### Laptop
Laptops are like portable versions of desktop computers. You can take them anywhere!

### Tablet
Tablets are like magic digital notepads. They're handy for drawing, reading, and playing games.

### Smartphone
Your smartphone is a mini-computer you carry in your pocket. It can make calls, take photos, and do a lot more.

### Game console
Game consoles are special computers just for playing video games.
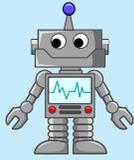
### Robot
Robots are machines that can do jobs, designed to look and sometimes even act like humans.

Not all machines or electronic devices are computers, but many of them can have computers added to them to make them programmable and smarter.

Machines that do not have a computer in them is called **analog** or **manual**

Machines that have computers in them is called **digital** or **automatic**

Computers are all around us, even in everyday things we might not expect. For example, your microwave oven has a computer inside that controls how long it heats your food. The games and movies on your mobile phone are brought to life by tiny but powerful computers.

Think about lifts (elevators), televisions, traffic lights, and even cars – they all have parts that are controlled by computers. And guess what? Robots, those cool machines that can move and do tasks on their own, are also computers at their core.

## Computers Are Tools

Remember, computers are like tools. Just as you can use a pencil to draw or write, you can use a computer to create art, do homework, play games, and learn amazing things. In the chapters ahead, we'll learn how to use these digital tools to have fun and explore the digital world even further!

### Exercise

Worksheet #2: Technology Gadgets
Worksheet #3: Technology Change

# NAVIGATING THE COMPUTER

Before you can use the computer, it's essential to understand how to turn it on and off properly. The power button is typically located on the front or top of your computer's case or keyboard.
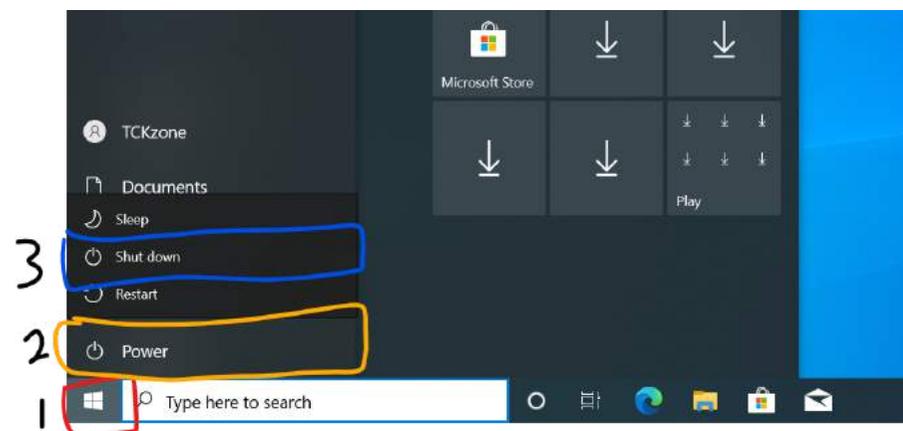
## Power Button and System Start-up

To start your computer:

1. Locate the power button
2. Press it once briefly.
3. Wait for the computer to boot up

To shut down your computer:

1. Click the Windows Start button (usually located in the bottom-left corner of your screen).
2. Select "Power."
3. Choose "Shut down."

## Understanding the Keyboard Layout

Keyboards come in various layouts, but the most common one is the QWERTY layout, named after the first six letters in the top row of the keyboard. Familiarize yourself with the keyboard layout to type efficiently.

Some essential keys to know:
- Alphanumeric keys: These include letters, numbers, and symbols.
- Function keys (F1, F2, etc.): These perform specific functions depending on the application.
- Enter/Return key: Used to confirm actions or start new lines.
- Spacebar: Inserts a space between words.
- Backspace/Delete key: Erases characters to the left of the cursor.
- Tab key: Moves the cursor to predefined positions.
- Arrow keys: Navigate through documents and menus.
- Shift key: Used to type uppercase letters and access additional symbols.
- Ctrl (Control) key: Combined with other keys, it performs various shortcuts.
- Alt (Alternate) key: Similar to Ctrl, it modifies keyboard shortcuts.

**Proper Finger Placement on the Keyboard**

Left Hand Keys          Right Hand Keys
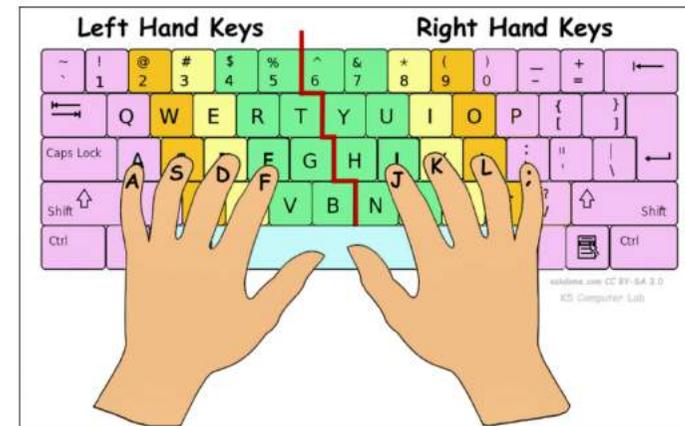
Practice typing to become comfortable with the layout, and soon you'll be able to type without looking at the keys.

## Mastering the Mouse

The mouse is a pointing device that allows you to interact with your computer's graphical interface. It typically has two buttons (left and right) and a scroll wheel (on many models).

Basic mouse actions:
- Left-click: Selects items and activates links.

- Right-click: Opens context menus with additional options.

- Scroll wheel: Navigates through long documents and web pages.



LEFT CLICK    RIGHT CLICK

SCROLL
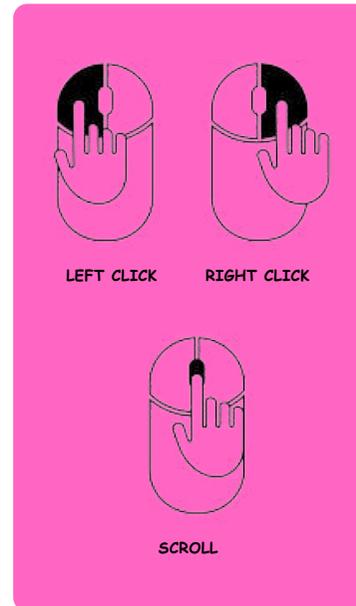
To move the cursor on the screen, simply move the mouse. The pointer on the screen will follow your movements. Clicking the left mouse button selects items or activates functions, while right-clicking opens a menu with more options.

Practice using the mouse to click on icons, open files, and navigate websites. As you become more proficient, you'll discover the mouse's versatility in various applications.


Cursor


External Mouse


Laptop Touchpad

## Exploring Applications

Applications, often referred to as "apps," are software programs that perform specific tasks. They are the tools that make your computer a versatile and powerful device. Some common types of applications include word processors, web browsers, email clients, and multimedia players.

To launch an application:
1. Click the Windows Start button.
2. Scroll through the list of installed applications.
3. Click on the desired app to open it.
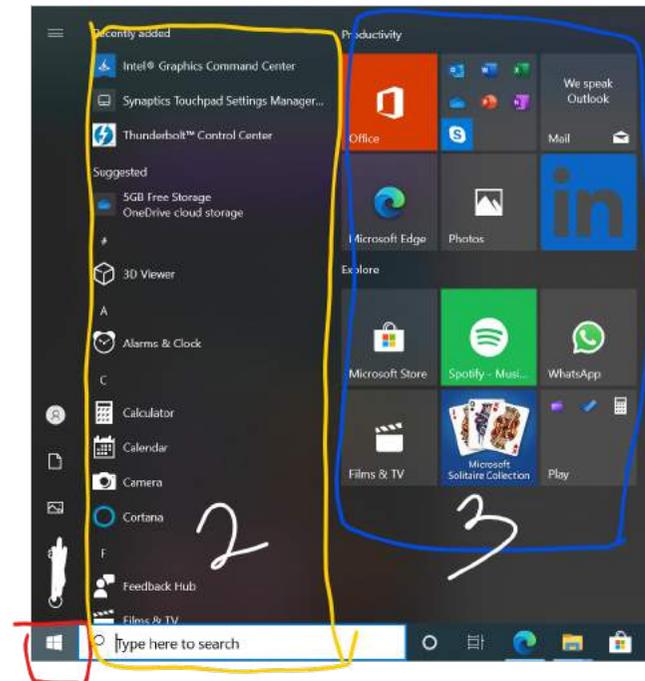


### Exercise

Worksheet #4: Computer Parts
Worksheet #5: Everyday Technology
Practical: Touch Typing
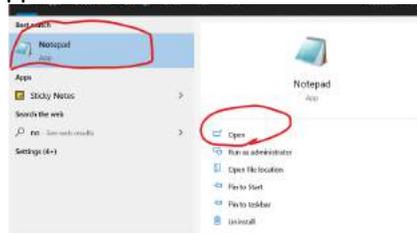
# BASIC FILE MANAGEMENT

Having a structured approach to file management will save you time and help you keep your digital workspace neat and organized.

## Creating and Saving Documents

### To create a new document

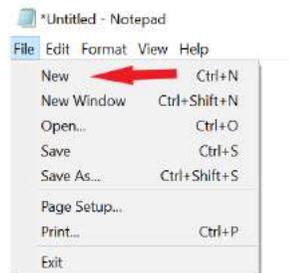you'll often use a word processing application like Microsoft Word. Here's how:

Step 1: Open the word processor application

Step 2: Click on "File" in the top-left corner.

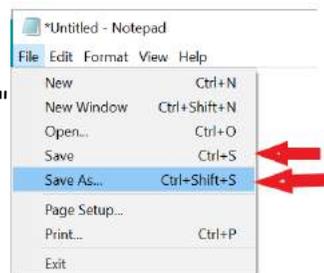Step 3: Select "New" to create a new, blank document.

Step 4: Start typing your content.

### To save your document:
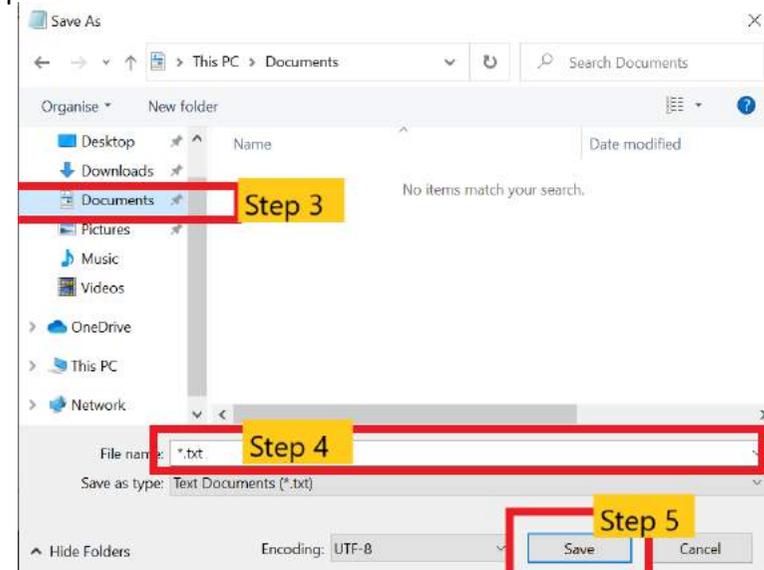
Step 1: Click on "File" again.
Step 2: Choose "Save" or "Save As."

Step 3: Select the location where you want to save the file (e.g., Desktop or Documents).

Step 4: Give your file a name and choose a file format (e.g., .docx or .pdf).
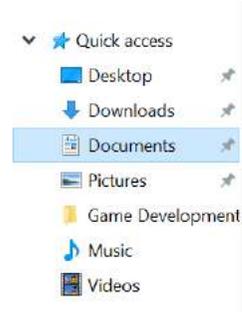
Step 5: Click "Save."

Remember to save your work regularly to avoid losing any changes.

# Organizing Files and Folders

As you create more documents and accumulate files, it's crucial to keep everything organized. Folders are like digital filing cabinets that help you categorize and store your files systematically.

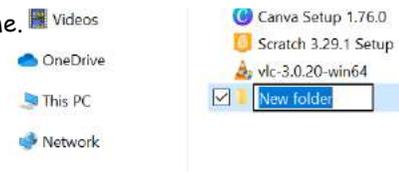## To create a new folder



Step 1: Right-click on the location where you want to create the folder (e.g., Desktop or Documents)
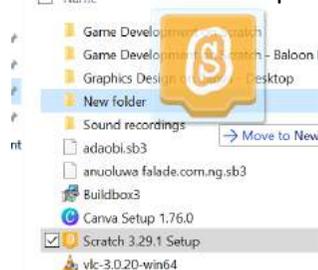


Step 2: Choose "New" and then "Folder."
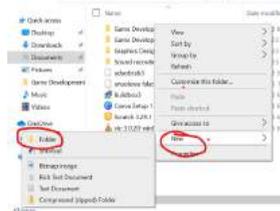
Step 3: Give your folder a descriptive name.



You can then move files into these folders for better organization.

## To move a file:

Click and drag the file to the desired folder.
Release the mouse button to drop the file into the folder.
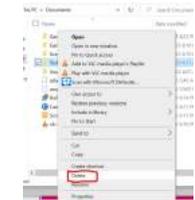


# Renaming and Deleting Files

## To rename a file:
1. Right-click on the file you want to rename.
2. Select "Rename."
3. Type the new name and press "Enter" to save it.



## To delete a file
1. Right-click on the file you want to delete.
2. Choose "Delete."
3. Confirm the deletion if prompted.



Be cautious when deleting files, as they may not always be recoverable.

# Searching for Files

As your collection of files grows, finding specific items can become challenging. Luckily, most operating systems provide a built-in search function. To search for a file:

1. Click the magnifying glass or search icon in the taskbar or menu.
2. Type keywords related to the file you're looking for.
3. Review the search results to find your file.



Using descriptive file names and organizing your files into folders will make it easier to locate what you need quickly.

# INTERNET FUNDAMENTALS

Let's imagine the Internet is like A Huge Playground where computers, tablets, and phones play and share toys (information) with each other.



The internet is simply a global network of interconnected computers and devices that allows information to be shared and accessed globally.

Understanding the internet's fundamentals is crucial in today's digital age.

The internet is a vast and interconnected network of computers that has transformed the way we access information, communicate, and conduct business.
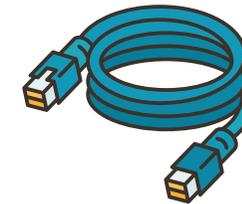
## Connecting to the Internet

To access the internet, you need an internet connection. There are various ways to connect, including

- **Wi-Fi:** Most modern computers and devices have Wi-Fi capabilities. To connect, click on the Wi-Fi icon in the taskbar or settings, select a network, and enter the password if required.
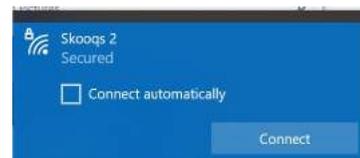


**Wi-Fi**

- **Ethernet:** You can also connect to the internet using an Ethernet cable. Plug one end into your computer and the other into a router or modem.



**ETHERNET**

- **Mobile Data:** Smartphones and tablets can access the internet through mobile data. Make sure mobile data is enabled in your device settings.



**MOBILE DATA**

- **Public Wi-Fi:** When in public places like cafes or airports, you can connect to public Wi-Fi networks. Be cautious when using public Wi-Fi for sensitive activities, as it may not always be secure.



**PUBLIC WI-FI**

## Browsing the Web

Web browsers are software applications that allow you to explore the internet. Common web browsers include;

Google Chrome     Mozilla Firefox     Microsoft Edge     Apple Safari.

To start browsing:

Open your Web browser

Type a Web Address (URL) into the address bar and press "Enter."

The Browser will load the Webpage associated with the URL.

## Using Search Engines

Search engines are powerful tools for finding information on the internet. Google is one of the most popular search engines. To perform a search:

1. Open your web browser.
2. Go to the search engine's homepage (e.g., www.google.com).
3. In the search bar, type your query (e.g., "how to bake a cake").
4. Press "Enter" or click the search icon.

The search engine will display a list of relevant websites. Click on a search result to visit the webpage.
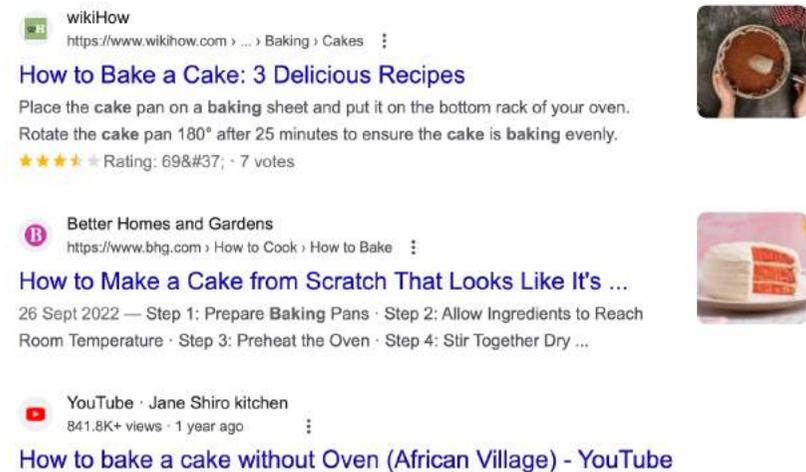
## How to Google like a Pro

- Use quotes to get an **"EXACT"** match
- Search within a specific site with **site:**
- Exclude a term from search results with **-**
- Search images of a particular size with **imagesize:**
- Search for a particular filetype with **filetype:**
- Use wildcard **\*** to make searches
- Combine searches with **OR, AND logic**
- Filter out searches with **AFTER:, BEFORE: or ..** between two numbers
- Check out related websites using **related:**
- Use **cache:** to see Google's cached version of a website

# EMAIL ESSENTIALS

Email is a ubiquitous form of communication used for personal, professional, and academic purposes.

## Setting Up an Email Account

Before you can start sending and receiving emails, you'll need to create an email account. There are numerous email service providers to choose from, such as Gmail, Yahoo Mail, Outlook, and many more. Here's a general overview of the process:

1. Choose an Email Service: Decide which email service provider you want to use and visit their website.
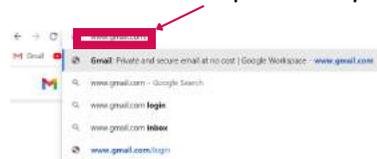
2. Sign-Up: Look for an option like "Sign up" or "Create an account." You'll be asked to provide personal information, such as your name, desired email address, and password.

3. Verification: Some providers may require you to verify your identity by providing a phone number or an alternate email address.
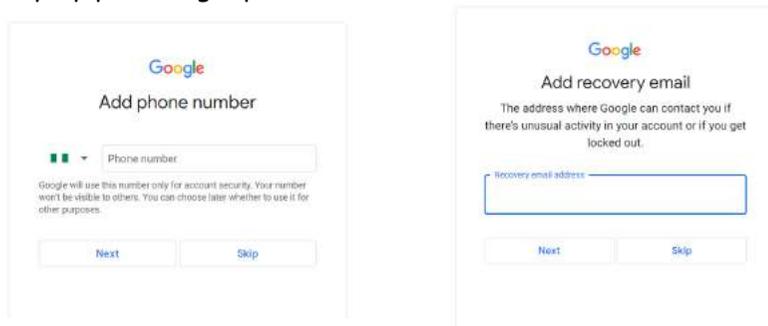
4. Personalize: Customize your email settings, such as your display name and email signature.

Once your email account is set up, you can start sending and receiving messages.

## Sending and Receiving Emails

### Composing an Email

To compose a new email:
1. Log in to your email account.
2. Look for an option like "Compose" or "New Email."
3. Enter the recipient's email address in the "To" field.
4. Add a subject to your email in the "Subject" field.
5. Write your message in the main text area.
6. You can use formatting options for text, such as bold, italic, and bullet points.
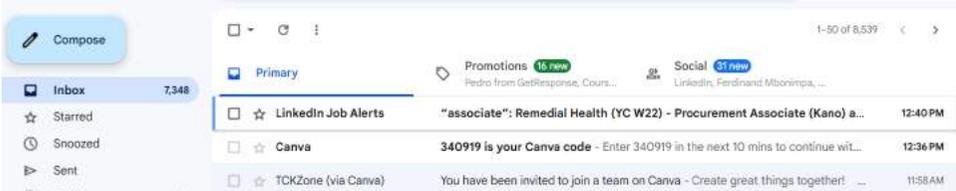7. Click "Send" to send the email.
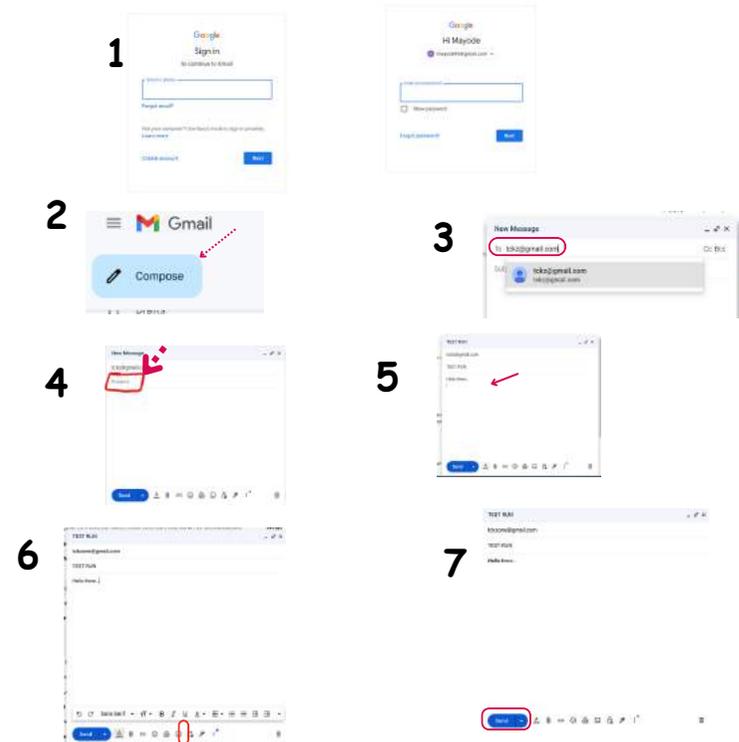
# Receiving an Email

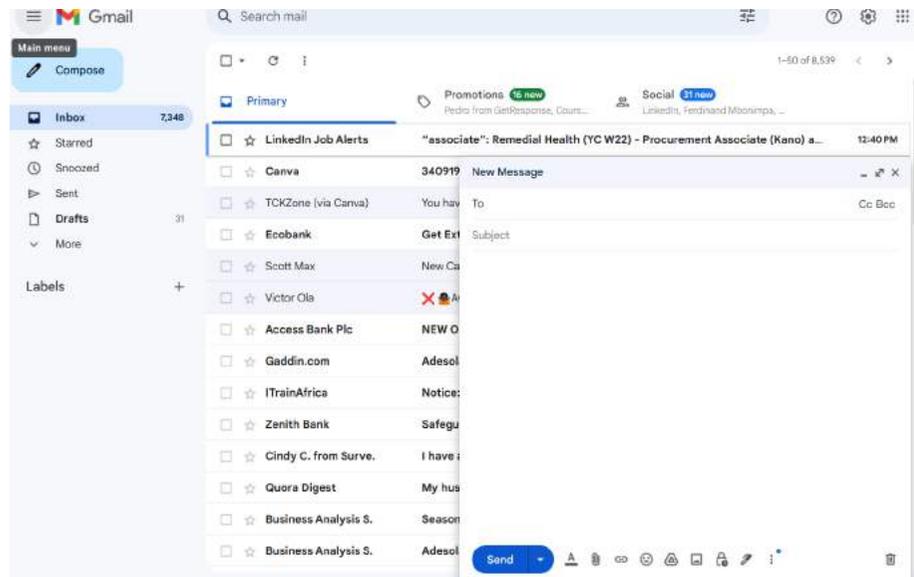When someone sends you an email, it will appear in your inbox. To read an email:

Click on the email in your inbox.
The email's content will be displayed, including the sender's name, subject, and message.



# Replying an Email

You can reply to emails, forward them to others, or archive them for future reference.



# Managing Email Contacts

Managing your email contacts is essential for efficient communication. You can create a list of contacts for easy access.
**Here's how to add a contact:**

- Find the "Contacts" or "Address Book" option in your email service.
- Select "Add Contact" or a similar option.
- Fill in the contact's details, such as name, email address, and phone number.
- Click "Save" or "Add."

You can organize your contacts into groups or categories, making it easier to send emails to specific recipients.

Remember to be mindful of email etiquette when communicating via email, and be cautious when opening attachments or clicking on links from unknown senders to protect yourself from phishing attempts.
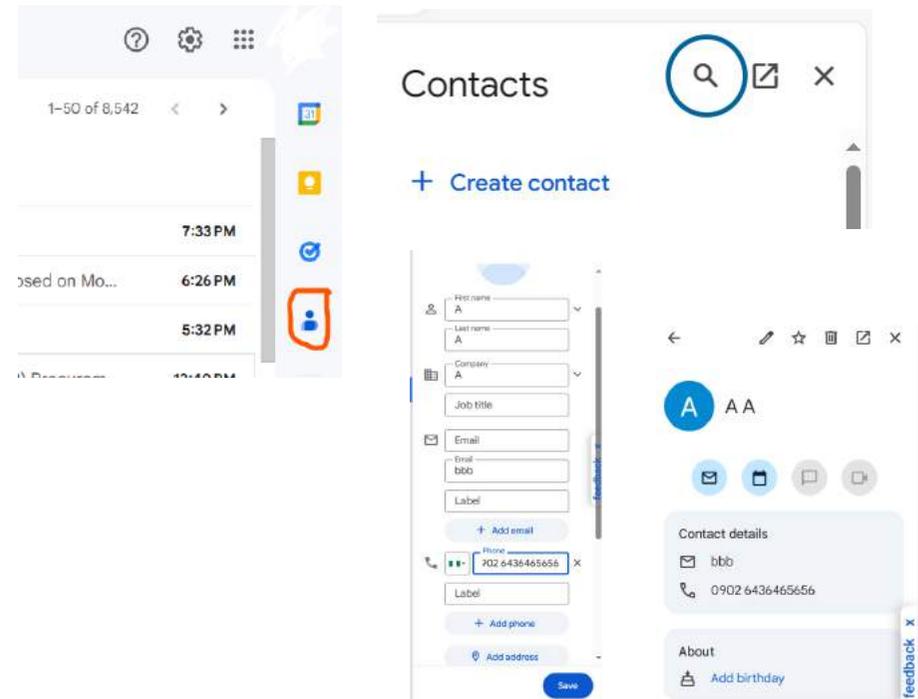
# CYBERSECURITY AWARENESS

## What is Cybersecurity?

Cybersecurity helps protect our digital gadgets, such as laptops, tablets, and phones, from cunning online criminals, much like we lock our doors to keep our homes safe.  It's a collection of abilities that aid in defending our data and shielding our virtual world from malicious actors.

Cyber threats can take various forms, including viruses, malware, phishing attacks, and data breaches.



## Why is Cybersecurity Important?

Cybersecurity is essential for several reasons:

- Protection of Personal Information: It safeguards your personal and financial information from being stolen or misused.
- Prevention of Data Loss: It helps prevent data loss, which can be costly and disruptive.
- Avoiding Identity Theft: Cybersecurity measures can prevent identity theft and financial fraud.
- Preserving Reputation: Businesses and individuals alike can suffer reputational damage from security breaches.

## Cybersecurity Best Practices

### Password Management

- Use Strong Passwords: Create complex passwords with a mix of uppercase and lowercase letters, numbers, and special characters.
- Avoid Common Passwords: Don't use easily guessable passwords like "123456" or "password."
- Use a Password Manager: Consider using a password manager to securely store and generate strong passwords.

### Phishing Awareness

- Be Cautious of Email Links and Attachments: Don't click on suspicious links or download attachments from unknown sources.

- Verify the Sender: Confirm the authenticity of the sender before providing any sensitive information.

- Check URLs: Hover over links to see the actual URL before clicking.

## Software Updates

Keep Software Updated: Regularly update your operating system, antivirus software, and other applications to patch security vulnerabilities.

## Two-Factor Authentication (2FA)

Enable 2FA: Whenever possible, enable two-factor authentication for your online accounts. This adds an extra layer of security.

## Public Wi-Fi

Use Caution on Public Wi-Fi: Avoid conducting sensitive transactions on public Wi-Fi networks, as they may not be secure.

## Data Backup

Regular Backups: Regularly back up your important data to an external device or a secure cloud service.

## Social Media Privacy

Review Privacy Settings: Review and adjust the privacy settings on your social media profiles to control what information is visible to the public.

## Cybersecurity Education

Stay Informed: Stay updated on the latest cybersecurity threats and best practices through online resources and news outlets.

## Reporting Cyber Incidents

If you suspect a cyber incident or become a victim of cybercrime, it's essential to report it to the relevant authorities and organizations. Reporting can help prevent further damage and protect others from falling victim to the same threats.

By practicing cybersecurity awareness and adopting these best practices, you can significantly reduce the risk of falling victim to cyber threats and ensure the safety and security of your digital presence.

**Exercise**
Worksheet #15: Cybersecurity Awarenesss Quiz

# WORD PROCESSING

Word processing is a fundamental digital skill that allows you to create, edit, and format text documents. Whether you're writing essays, reports, or simply taking notes, word processing software is a versatile tool.

## Introduction to Word Processing Software

Word processing software, such as Microsoft Word, or Google Docs, provides a user-friendly interface for creating and formatting text documents. Here's how to get started:
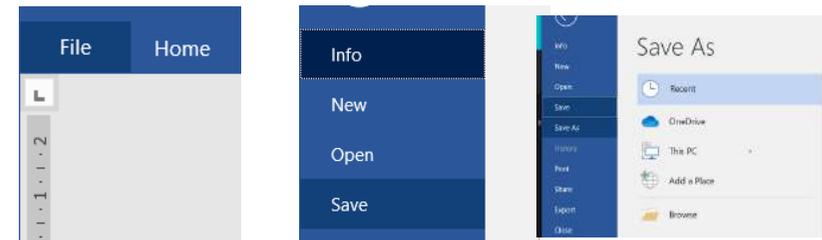
1. Open the Software: Launch your preferred word processing software



2. Create a New Document: In most software, you can click on "File" and then "New" to create a blank document.
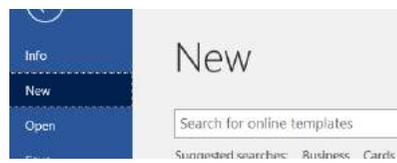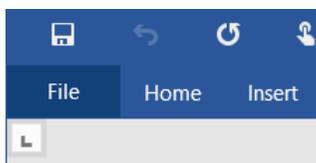


3. Type and Edit: Click anywhere on the blank page and start typing your text. You can use standard text-editing features like copying, pasting, and cutting.
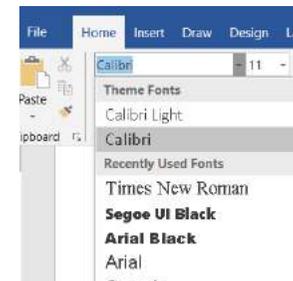




## Formatting Text and Documents

Effective formatting enhances the readability and visual appeal of your documents. Here are some essential formatting techniques:

## Font Style and Size

- Font Style: Choose a font style that suits your document's purpose. Common fonts include Times New Roman, Arial, and Calibri.
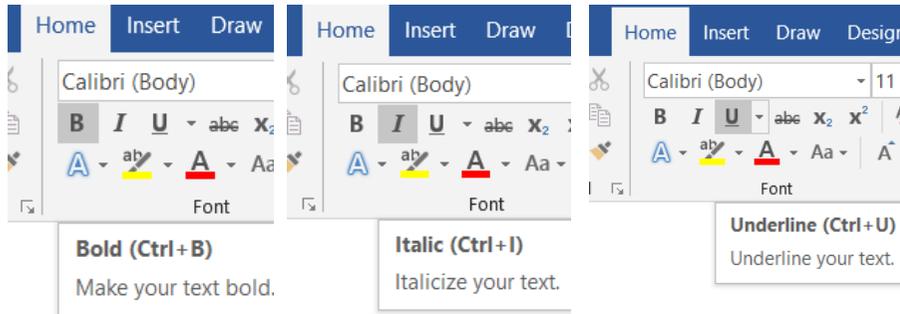


- Font Size: Adjust the size of your text to make it more readable. Headings are typically larger than body text.
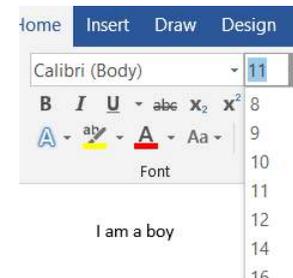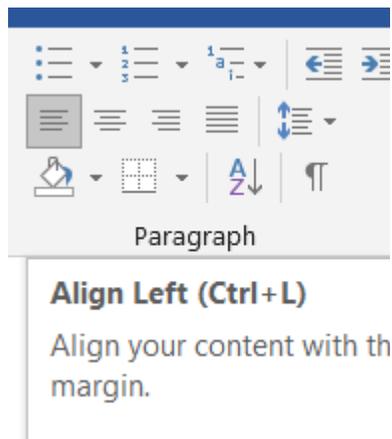
# Text Formatting

- Bold: Use bold text to emphasize important points.
- Italics: Italics can be used for titles, emphasis, or quotations.
- Underline: Underlining text is often used for hyperlinks or to denote book titles.

# Alignment and Line Spacing

- Alignment: You can align your text to the left, center, right, or justify it (align text evenly on both sides).

- Line Spacing: Adjust the spacing between lines to improve readability. Common options include single spacing, double spacing, or custom spacing.

# Bulleted and Numbered Lists

- Bullets: Use bullets to create lists of items without a specific order.
- Numbered Lists: Numbered lists are suitable for items that have a sequential order or hierarchy.

# Spell-check and Proofreading

Most word processing software includes spell-check and grammar-check tools. These can help you catch spelling errors and grammatical mistakes. Be sure to review your document for accuracy and clarity before finalizing it.
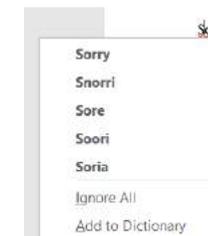
# SPREADSHEETS MADE EASY

Spreadsheets are powerful tools for organizing and analyzing data

## Spreadsheet Basics

Spreadsheets are composed of rows and columns, creating a grid-like structure. Each intersection of a row and column is called a cell, and it can contain text, numbers, or formulas. Common spreadsheet software includes Microsoft Excel, and Google Sheets

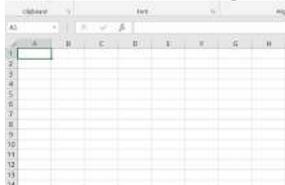## Creating a New Spreadsheet

To create a new spreadsheet:

1. Open your preferred spreadsheet software.



2. Click on "File" and select "New" or "Create a new spreadsheet."



3. You'll be presented with a blank grid.
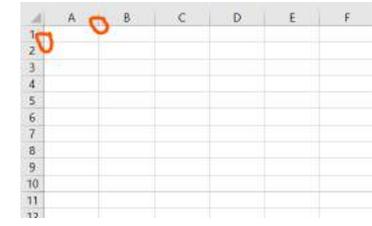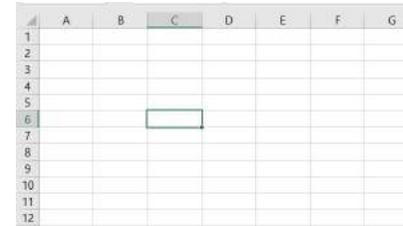


## Entering Data

To enter data into a cell:



1. Click on the cell where you want to input data.
2. Start typing. You can input text, numbers, or dates.

## Rows and Columns

- Rows are numbered, typically starting from 1 at the top.
- Columns are labeled with letters, starting from A on the left.

You can resize rows and columns by clicking and dragging the edges of their headers.



## Creating, Editing, and Formatting Spreadsheets

**Formulas and Functions**

One of the most powerful features of spreadsheets is the ability to perform calculations using formulas and functions. Formulas start with an equal sign (=) and can include mathematical operators (+, -, *, /) and cell references. For example, to add the contents of cells A1 and B1, you can enter "=A1 + B1" in another cell.

Functions are predefined formulas that perform specific calculations. For instance, the SUM function adds a range of numbers, and the AVERAGE function calculates the average of a range.
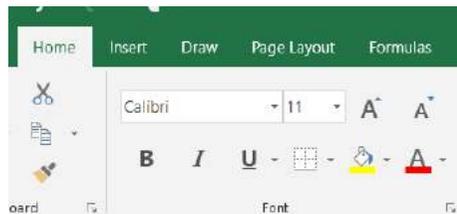


=SUM(A1:A5)
=COUNT(A1:A5)
=AVERAGE(A1:A5)
=MIN(A1:A5)
=MAX(A1:A5)
=IF(A1>33,"P","F")

# Formatting Cells

Formatting cells can enhance the appearance and readability of your spreadsheet. You can change cell formatting options such as:

- Number formats (e.g., currency, percentage)
- Font style and size
- Cell borders
- Background colors



# Data Validation

To ensure data accuracy, you can set up data validation rules. For example, you can create a rule that allows only numbers between 1 and 100 to be entered into a specific cell.
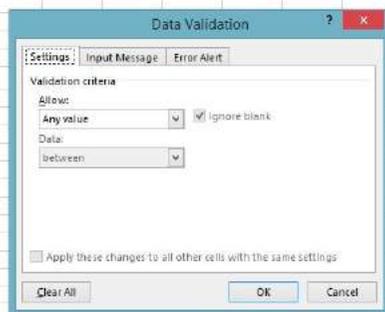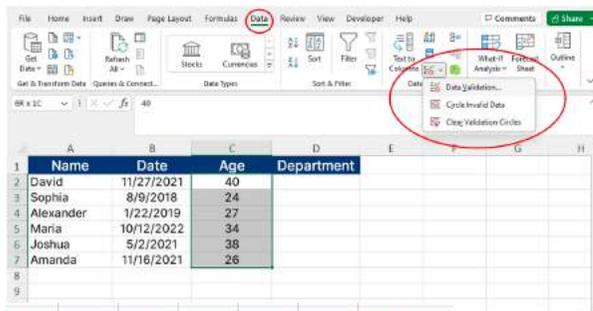


# Data Visualization

Spreadsheets are not only about numbers; they can also create charts and graphs to visualize data. Common chart types include bar charts, line graphs, and pie charts. To create a chart:

1. Select the data you want to include in the chart.
2. Click on the "Insert" or "Chart" option in your spreadsheet software.
3. Choose the chart type and customize it as needed.

Charts can help you understand and present data more effectively.
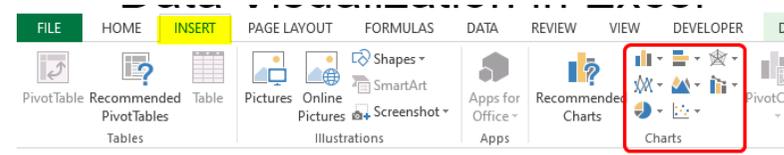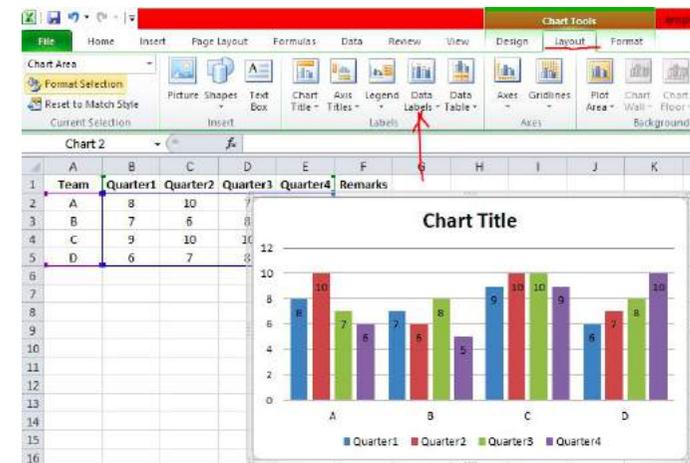
# PRESENTATION SKILLS

Effective presentations are a crucial aspect of both academic and professional communication. They allow you to convey information in an engaging and visually appealing way.

## Choosing a Presentation Software

There are various presentation software options available, including Microsoft PowerPoint, and Google Slides. Select the software that suits your needs and familiarity.

## Planning Your Presentation

Before diving into your presentation software, it's essential to plan your content and structure. Consider the following:

1. Audience: Who will be your audience, and what is their level of knowledge on the topic?
2. Message: Define the key message or takeaway you want your audience to remember.
3. Structure: Organize your content into clear sections or chapters, just like in a book. A typical structure includes an introduction, main content, and a conclusion.
4. Visuals: Decide what visual aids, such as images, graphs, or videos, will complement your message.

## Designing Slides

The design of your slides plays a significant role in engaging your audience. Here are some design principles to consider:

- Simplicity: Keep slides uncluttered with minimal text. Use bullet points or short phrases.
- Visuals: Incorporate relevant visuals to enhance understanding and retention. Use high-quality images and graphics.
- Consistency: Maintain a consistent design theme, including fonts and colors, throughout your presentation.
- Legibility: Ensure that text is easily readable by using appropriate font sizes and contrasting colors.

## Adding Content

Select a Template
or use Blank
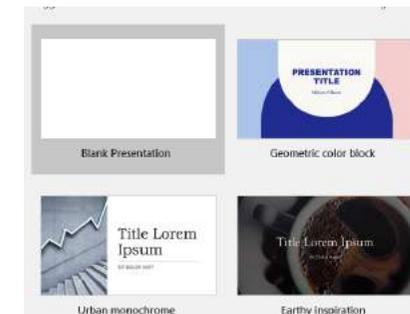
Add a topic to the slide
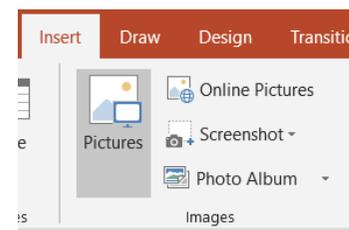
Add images to the slide

Use bullet points or numbered lists to break down information.



Include charts or graphs to illustrate data.
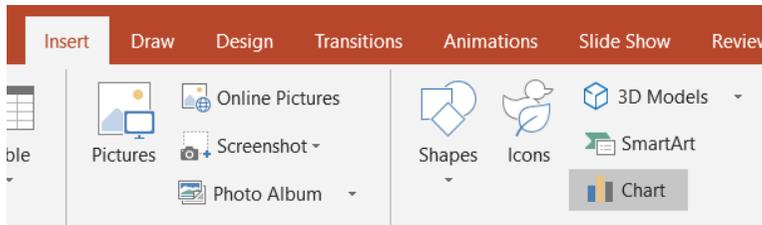


Use speaker notes to add additional information or reminders for yourself.

## Slide Transitions and Animations

Slide transitions and animations can add visual interest but should be used sparingly and purposefully. Overusing transitions or animations can be distracting. To add them:

1. Select the slide you want to add a transition or animation to.



2. Access the transition or animation options in your presentation software.
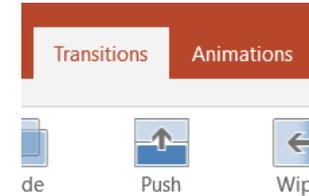


3. Choose the desired effect and adjust its settings.
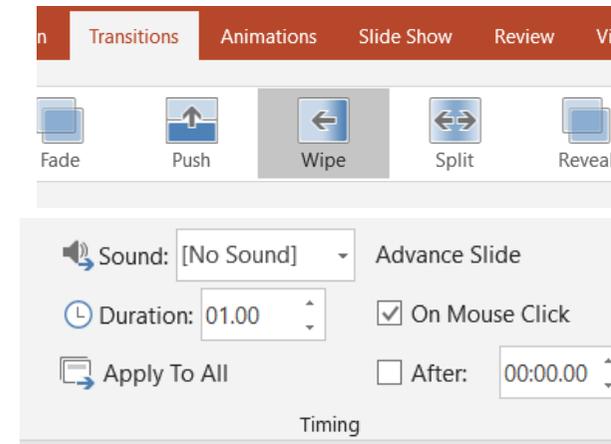


## Rehearsing Your Presentation

Practice is key to a successful presentation. Rehearse your presentation multiple times to:

- Familiarize yourself with the content and flow.
- Ensure that your timing is on point.
- Identify areas that need improvement.

Consider conducting a mock presentation to friends or colleagues to receive feedback.

# TROUBLESHOOTING COMMON COMPUTER ISSUES

Computers are indispensable tools in our daily lives, but they can occasionally encounter problems that disrupt our workflow. Being able to troubleshoot and resolve common computer issues is a valuable skill.

## Slow Performance

| Causes | Solutions |
|---|---|
| • Insufficient Memory: Running multiple applications simultaneously can lead to slow performance if your computer doesn't have enough RAM (Random Access Memory).<br><br>• Background Processes: Background processes and applications can consume system resources and slow down your computer. | • Close Unused Programs: Close any unnecessary applications or browser tabs to free up memory.<br><br>• Check for Malware: Run a malware scan to ensure your computer is not infected.<br><br>• Upgrade Hardware: If your computer is consistently slow, consider upgrading your RAM or, in some cases, your storage drive. |

## Internet Connection Issues

| Causes | Solutions |
|---|---|
| • Network Problems: Network issues or a slow internet connection can disrupt your online activities.<br><br>• Router or Modem Issues: Problems with your router or modem can lead to connectivity problems. | • Check Network Connection: Ensure your computer is connected to the correct Wi-Fi network or Ethernet cable.<br><br>• Restart Router/Modem: Try restarting your router or modem to refresh the connection.<br><br>• Contact Internet Service Provider (ISP): If the issue persists, contact your ISP for assistance. |

## Software Crashes

| Causes | Solutions |
|---|---|
| • Software Bugs: Some software may have bugs or compatibility issues that cause crashes.<br><br>• Insufficient Resources: Running resource-intensive software on a computer with limited hardware can lead to crashes. | • Update Software: Ensure your software is up-to-date with the latest patches and updates.<br><br>• Check Hardware Requirements: Verify that your computer meets the software's hardware requirements.<br><br>• Reinstall or Repair: If a specific application frequently crashes, consider reinstalling it or using its repair function (if available). |

## Blue Screen of Death (BSOD) or System Crashes (Windows)

| Causes | Solutions |
|---|---|
| • Driver Issues: Incompatible or outdated drivers can trigger BSOD errors.<br><br>• Hardware Problems: Faulty hardware components can lead to system crashes. | • Update Drivers: Ensure your drivers are up-to-date, especially graphics and chipset drivers.<br><br>• Check Hardware: Run hardware diagnostics to identify and replace faulty components. |

## Noisy or Overheating Computer

| Causes | Solutions |
|---|---|
| • Dust Buildup: Dust can accumulate inside your computer, leading to overheating and noisy fans. | • Clean Your Computer: Periodically clean your computer's interior to remove dust. Be sure to power off and unplug it before cleaning.<br><br>• Check for Obstructions: Ensure that cooling vents and fans are not obstructed. |

## Printer Problems

| Causes | Solutions |
|---|---|
| • Driver Issues: Outdated or incompatible printer drivers can cause printing problems.<br><br>• Connection Issues: Connectivity issues between your computer and printer can lead to printing failures.<br><br>• | • Update Drivers: Ensure you have the latest printer drivers installed.<br><br>• Check Connections: Verify that your printer is properly connected to your computer and powered on. |

If you encounter more severe or complex issues, it's advisable to seek professional assistance. Troubleshooting can sometimes be challenging, and it's essential to avoid causing further damage.

By learning how to diagnose and address common computer issues, you can maintain the reliability and functionality of your digital devices, ultimately saving time and frustration in the long run.

# CODING AND PROGRAMMING

# CODING FOR KIDS

A code is basically an instruction in a language made specifically to communicate with computers. Believe it or not, it is as simple as telling someone: "Do your homework".

A coder is one who is proficient in the language of the computers and thus, is the one telling the computer what to do in the language it understands.

## Computer Programs

Computers do not think and cannot figure things out themselves the way human beings can, they only followinstruction that has been given to them by human beings.

A program is a string of instructions that come together to perform a specified task.

The instructions in a program need to be written step-by-step so that the computer can follow the steps.

Computers have a brain called 'memory' where al programs are stored. When a computer follows the instructions in a program given to it, we say the computer is running the program.

Computers can only run programs that have been stored in their memory. The process of adding a program to the memory of a computer is called installation.

## What is a programming language?

To put it simply, the programming language is the translated language from human to computer. Programming Languages are the languages used to write code .
When you write code in a programming language, the code is then interpreted for the machine to respond.

People who create computer programs are called Programmers

## Types of Programming language

Here is a list of the most common programming languages:

Python

JavaScript

Java

C#

C
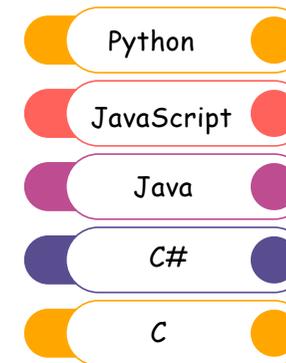
We also have Block Programming languages where the codes are in form of blocks.

## Structure of a Program

**EVENT**
Something or some one tells the program when to start.
E.g a button or a voice command

**PROGRAM**
The computer begins to follow the list of Instructions provided in the program.

**END**
When the instructions are over, the computer does somering to let you know it has completed.

## Example of how a program works

A teacher says:
1. Adam, come to the front of the class"
2. "Clap 10 times and then jump"
3. When you're done, go back to your seat

The **EVENT** is the teacher calling Adam out

The **PROGRAM** asks Adam to clap 10 times and ju

When the program **ENDS**, Adam returnst o his seat

Computer Games, Mobile phone apps,Traffic Light Controllers, ATM, and Elevators are all examples of computer programs.

Help the mouse find its way to the cheese! Make the path using the direction cards.
Enter the algorithm into your robot mouse to check.
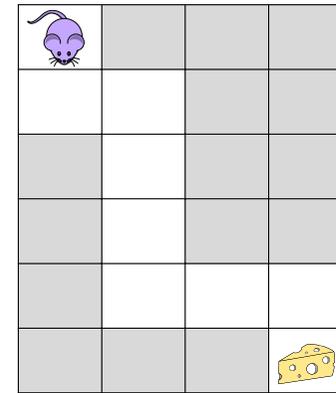


### Program
1. Move Down
2. Move Right
3. Move Down
4. Move Down
5. Move Down
6. Move Right
7. Move Right
8. Move Down

## What can I do when I learn how to code?

Create your own game

Create your own car

Create your own robot

Make you good in math

## Branches of Coding

Robotics | Gaming | Website Development | Application Development

## Exercise

Worksheet Activity #7

# ALGORITHMS

Algorithms are mostly a list of instructions that one follows, in the correct steps, to solve any given problem.

Every computer program is an algorithm that has been programmed using code for the computer to understand

> An algorithm is a step-by-step instruction of how to perform a task.

Almost everything we do everyday follows an algorithm. Take a look at the following examples

## ALGORITHM FOR NOODLES PREPARATION

1. Boil Water
2. Add your noodles
3. Add the spices
4. Serve your noodles

📌 If you program this algorithm into a robot, the robot will also be able to prepare noodles.

## ALGORITHM FOR BRUSHING YOUR TEETH

1. Pick you a brush
2. Rinse the brush
3. Pick up the toothpaste
4. Apply toothpaste to brush
5. Rinse the mouth
6. Brush the teeth for two minutes
7. Brush the tongue
8. Rinse the mouth
9. Rinse the brush

## How to create an algorithm

- Know task you want to do
- Decide where you want to start and end
- Make sure the instructions we give are short and simple.
- The instruction should be arranged in the right order
- Each step needs to be clear so that anybody reading the algorithm knows exactly what to do
- Check to make sure you didn't miss anything
- Once you are done listing the steps, you have created an algorithm for that task.
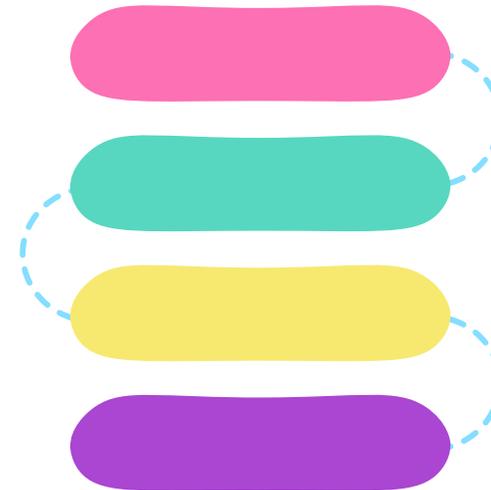
## Exercise

Worksheet Activity #8: Algorithms

# DIGITAL MARKETING

# DIGITAL COMMUNICATION

In today's digital age, effective communication extends beyond face-to-face conversations. Digital communication tools have become essential for staying connected with others, both personally and professionally.

## Video Calls

Video calls enable real-time, face-to-face communication, even when you're miles apart. Popular video conferencing tools include,
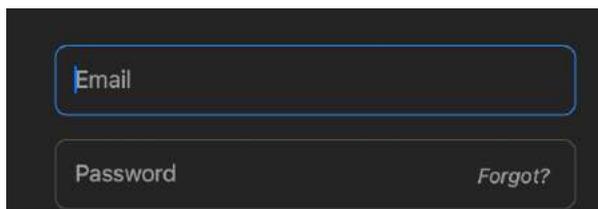


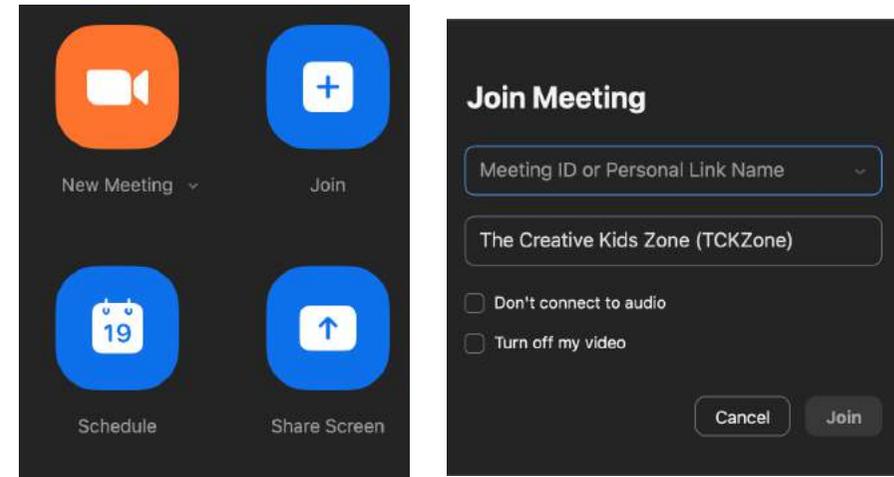Here's how to make a video call:

1. Open your chosen video conferencing application.



2. Sign in or create an account if required.



3. Initiate a call by selecting a contact or entering their email address.



4. Once connected, use your webcam and microphone to communicate.

## Voice Calls

Voice calls are a quick way to communicate when video isn't necessary. You can make voice calls through applications like WhatsApp, Skype, or traditional phone services.

To make a voice call:

1. Open the communication app.





2. Dial the number you want to call

3. Call an existing contact





4. End the Call

## Instant Messaging and Chat

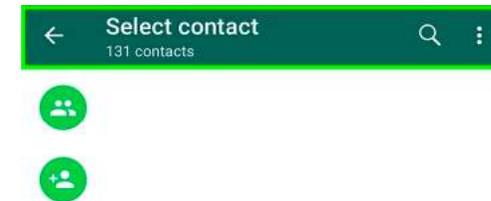Instant messaging (IM) and chat applications allow for text-based conversations in real time. Some popular IM platforms include WhatsApp, Facebook Messenger, and Slack.
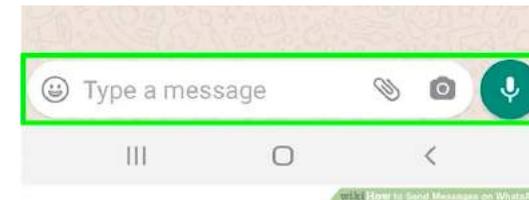
Here's how to send an instant message:

1. Open the messaging app.



2. Select the contact or group you want to message.
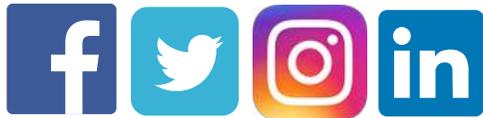


3. Type your message in the chat window.



4. Press "Send."
You can also use emojis, stickers, and multimedia files to enhance your messages.

# Social Media Basics

Social media platforms, such as Facebook, Twitter, LinkedIn, and Instagram, are used for personal and professional networking and communication. Here are some social media basics:

Profiles: Create a profile with your information and a profile picture.
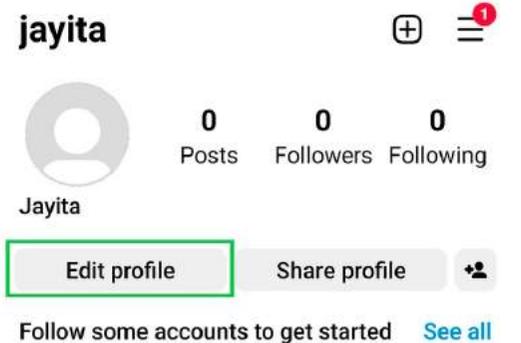
Posts: Share updates, photos, videos, or links with your network.
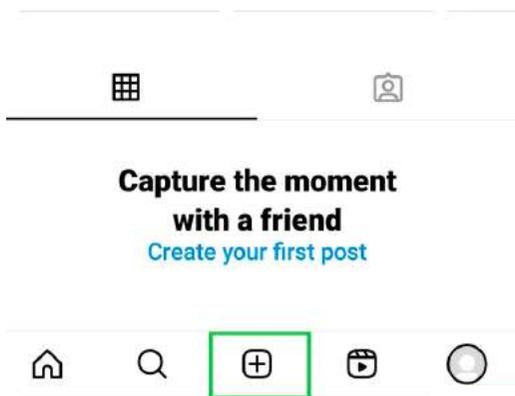
Followers and Connections: Connect with others by following or sending connection requests.
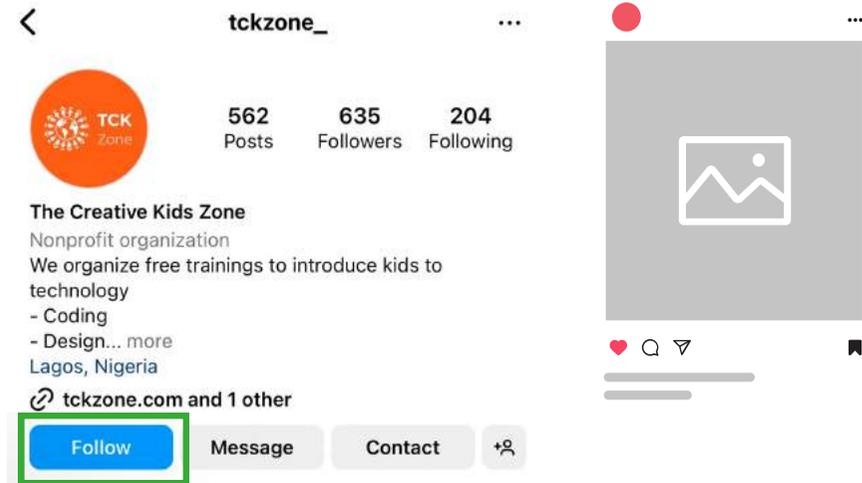
Engagement: Interact with others by liking, commenting, or sharing their content.

Remember to maintain professionalism on platforms like LinkedIn, which are often used for career networking.

## Exercise

Worksheet #: Digital Communication Quiz

# DIGITAL SKILLS FOR WORK

## Resume Building

When it comes to crafting an effective resume, a digital touch can make all the difference in today's job market. Here are some tips for building a standout resume:

- Online Resume Builders: Explore online resume builders such as LinkedIn's Resume Builder, Canva, or Zety. These tools offer templates and formatting options that can give your resume a professional edge.

- Keyword Optimization: Tailor your resume to specific job descriptions by incorporating relevant keywords. Many companies use Applicant Tracking Systems (ATS) to scan resumes, so using the right keywords can increase your chances of being noticed.

- Quantify Achievements: Instead of vague descriptions, use specific metrics to highlight your accomplishments. For example, rather than saying you "increased sales," specify that you "boosted sales revenue by 20% in six months."

## Job Search

The digital landscape has transformed the job search process. Here are some strategies for navigating this new terrain:

- Job Search Engines: Leverage job search engines like LinkedIn, Indeed, and Glassdoor to discover job openings. Use advanced search filters to narrow down results by location, industry, or company.

- Professional Networking: Building a strong professional network on platforms like LinkedIn can open doors to hidden job opportunities. Connect with colleagues, mentors, and industry professionals.

- Company Websites: Don't forget to explore the careers pages of companies you're interested in. Many organizations prefer to post job openings directly on their websites.

## Virtual Meetings

As remote work becomes more prevalent, mastering virtual meetings and effectively navigating the remote work landscape is essential.

- Video Conferencing Tools: Familiarize yourself with video conferencing tools like Zoom, Microsoft Teams, or Google Meet. Learn how to schedule, join, and host virtual meetings.

- Effective Communication: Virtual meetings require clear and concise communication. Practice articulating your thoughts, and be an active listener when others speak.

- Screen Sharing: Learn how to share your screen during meetings to present documents or visuals effectively.

## Remote Work

As remote work becomes more prevalent, mastering virtual meetings and effectively navigating the remote work landscape is essential.
- Time Management: Remote work offers flexibility but requires excellent time management skills. Establish a daily routine, set clear work hours, and avoid distractions.

- Digital Collaboration: Collaborate with remote colleagues using platforms like Slack, Microsoft Teams, or Trello. These tools facilitate communication, task management, and project collaboration.

- Self-Motivation: Staying motivated while working from home can be challenging. Set goals, create a dedicated workspace, and take regular breaks to stay productive.

## Career Development Resources

The digital world is constantly evolving, and staying relevant requires continuous learning. Here are some resources to aid your professional development:

- Online Courses: Platforms like Coursera, edX, and LinkedIn Learning offer a plethora of online courses on various topics. These courses often provide certificates upon completion.

- Podcasts and Webinars: Stay informed about industry trends and gain valuable insights by tuning into relevant podcasts and webinars. Many industry leaders and experts share their knowledge through these mediums.

- Mentorship Programs: Seek out mentorship opportunities within your organization or through professional networks. Mentorship can provide guidance, support, and valuable career advice.

- Networking Events: Attend virtual networking events, conferences, and workshops to build connections and learn from experts. Engaging in networking can open doors to new opportunities and collaborations.

## Online Networking On LinkedIn

In today's interconnected world, online networking has become a powerful tool for career development and growth. LinkedIn is the leading platform for professional networking. To maximize your online presence:

- Profile Optimization: Craft a compelling LinkedIn profile that includes a professional photo, a concise summary, and a detailed work experience section.

- Connections: Connect with colleagues, peers, industry professionals, and alumni. Growing your network increases your exposure to new opportunities.

- Engagement: Active engagement is key. Share relevant content, comment on posts, and join LinkedIn groups in your field of interest. Thoughtful engagement can help you establish your expertise and expand your network.

## Task Management and To-Do Lists

Efficient task management is a key component of productivity. To manage tasks effectively, consider these techniques:

- To-Do Lists: Create daily or weekly to-do lists to outline your tasks and priorities.

- Task Prioritization: Assign priorities to tasks using labels like "urgent," "important," or "low priority."

- Time Blocking: Allocate specific blocks of time in your schedule for focused work on particular tasks.

- Task Management Apps: Utilize task management apps like Todoist, Wunderlist (now Microsoft To Do), or Asana to keep track of tasks and deadlines.

- Calendar Apps: Use calendar apps like Google Calendar or Microsoft Outlook to schedule appointments, meetings, and reminders.

- Goal Setting: Set clear goals and break them down into smaller, manageable tasks.

- Distraction Management: Identify common distractions and develop strategies to minimize them during work hours.

# DIGITAL SKILLS IN EVERYDAY LIFE

## Online Shopping

Online shopping allows you to explore a world of products without leaving your home. Here's what you need to know:

Navigating E-Commerce Websites:
- Open your preferred web browser.
- Type the name of the online store in the search bar or directly enter the website's URL.
- Explore product categories and use filters to narrow down options.

Safe Online Transactions:
- Ensure the website's URL starts with "https://" for a secure connection.
- Use trusted payment methods like credit cards or secure online payment services.
- Double-check the website's security certificates before entering personal information.

Comparison Shopping:
- Open multiple tabs to compare prices across different websites.
- Read product reviews and ratings on the e-commerce site or external review platforms.
- Tracking Deliveries:
- After making a purchase, check your email for an order confirmation.
- Use the provided tracking number to monitor the delivery status on the courier's website.

## Online Banking

Managing your finances online offers convenience and accessibility:

Mobile Banking Apps:
- Download your bank's official mobile app from the App Store or Google Play.
- Install the app, open it, and follow the on-screen instructions to set up your account.

Digital Transactions:
- Log in to your mobile banking app.
- Navigate to the "Transfers" or "Payments" section to initiate digital transactions.
- Enter the recipient's details and follow the prompts to complete the transaction.

Security Measures:
- Enable two-factor authentication (2FA) in your account settings for an added layer of security.
- Regularly update your mobile banking app to benefit from the latest security features.
- ents to monitor your transactions.

- Phishing Awareness: Be cautious of phishing attempts and verify the authenticity of emails.

## Entertainment and Streaming

Parental Controls:
- Navigate to the app's settings or account management section.
- Locate the parental controls feature and set restrictions according to your preferences.

# ACKNOWLEDGEMENT

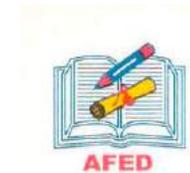## PROJECT SPONSOR



## PROJECT PARTNERS AND COLLABORATORS



## CONTRIBUTORS

Project Lead/Executive Director: Oluwadamilola Soyombo Ojo
Project Associate Lead: Rotimi Eyitayo
Project Team: Deji Morgan, Teslimat Okanlawon, Nike Peters, Chinyere Ukatu, Deborah Olagoke

# NOTICE

This document was designed and produced by The Creative Kids Zone Initiative (TCKZone) as an output material under the Digital Skills Fellowship Project funded by the Theirworld Education Innovation Award.